DOCUMENT RESUME

ED 167 959 CS 004 681

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TITLE The Effect of a Language-Based Reading Approach upon the Reading Strategies of First Grade Children.
PUB DATE 78
NOTE 304p.; Ph.D. Dissertation, Pacific States University; Several Appendixes and Figure 7 were removed due to copyright restrictions or poor reproducibility; Best copy available

EDRS PRICE MF01/PC13 Plus Postage.
DESCRIPTORS Beginning Reading; Grade 1; Language Development; *Language Experience Approach; Miscue Analysis; Primary Education; *Reading Achievement; Reading Comprehension; *Reading Instruction; *Reading Research; Student Attitudes; *Teaching Methods
IDENTIFIERS *Reading Strategies

ABSTRACT

The effects of a language-based reading approach on the reading strategies of first grade children were examined in a study involving a total of 40 children. Half of the students were placed in an experimental group that was exposed to the language-based reading approach, and half were placed in a control group that was taught to read by a conventional method. At the end of the first-grade year, reading tests were administered to the children. Scores from the tests were used to evaluate their word recognition, comprehension, and accuracy. Their oral reading was audiotaped so that miscues could be analyzed, and the effect the beginning reading approach had upon attitude to and concept of reading was also measured. The results revealed that the experimental group achieved at a higher level on word recognition than did the control group; however, there was no difference between the groups in attitude to and concept of reading. Both groups produced miscues that indicated that sound/graphic relationships were high, while the experimental group produced a higher percentage of miscues with identical grammatical function and strength of grammatical relationship and with "no loss" in comprehension and retelling than did the control group. Finally, the experimental group showed a significantly more effective use of reading strategies than did the control group. (FL)

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THE EFFECT OF A LANGUAGE-BASED READING APPROACH UPON THE READING STRATEGIES OF FIRST GRADE CHILDREN

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by

D. Elizabeth Gardiner

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Submitted in partial fulfillment
of requirements for the degree of Doctor of Philosophy
in Pacific States University

1978

CS004681

DEDICATION

To my father, Ronald Robert Fleming, who loved reading.

ABSTRACT

This research was based on the assumptions that reading is a language-based cognitive process and that the beginning reader is an active language user. The purpose of the investigation was to study the effect of a language-based reading approach on the reading strategies of first-grade children.

First-grade children were exposed to a reading approach which allowed them to initially learn to read their own oral language patterns. Later, books selected by the children to read contained more natural language patterns, that is the material looked and sounded like language.

In this experimental study, a second group of children learning to read by a conventional reading approach became the control group. Post-test only control group design was adopted as the research procedure.

Six research questions were formulated for the purpose of this study. These were : after one year at school, do children exposed to either the language-based or conventional reading approach, achieve at similar levels, have a comparable attitude and concept of reading, use the three language cue systems, comprehend and use reading strategies effectively when reading?

From these research questions, six hypotheses were derived. No difference between the experimental and

control groups was hypothesized for reading achievement, attitude to and concept of reading. Reading miscue analysis was the procedure followed to evaluate groups for differences in percentage scores for Sound/Graphic Relationships, Grammatical Function, Grammatical Relationships, Comprehension and Retelling and the effectiveness of a reader's use of reading strategies.

It was concluded that the experimental group exposed to the language-based reading approached achieved at a higher level on word recognition. There was no difference between the groups in attitude to and concept of reading.

Both groups of children produced miscues which indicated that Sound/Graphic Relationships were high. These children were using the grapho-phonic language systems effectively.

Miscues with Identical Grammatical Function and Strength of Grammatical Relationships were recorded at a higher percentage for the experimental group. High percentage scores were also recorded for "No Loss" in Comprehension and Retelling. Finally, the experimental group showed a significantly (.01 level) more effective use of reading strategies.

Children exposed to the language-based reading approach produced miscues which, when analyzed by the procedure set down by Goodman and Burke in the Reading Miscue Analysis Inventory Manual, indicated the effectiveness of the use of reading strategies.

Further research is needed to refine the procedure "Reading Miscue Analysis".

The following concepts have important implications for beginning reading instruction : the teacher's and child's knowledge of the reading process; the initial use of the child's language for reading when speech is matched to print; reading materials which look and sound like language; reading skills developed within the context of reading and techniques which encourage prediction, the use of context and retelling to clarify meaning.

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CHAPTER I

BACKGROUND AND STATEMENT OF THE PROBLEM AND PURPOSE OF THE STUDY

Introduction

Sir Alan Bullock in A Language For Life,[1] hereafter referred to as The Bullock Report, examined all methods of teaching reading and language skills currently used in British schools. The efficiency or otherwise of these methods was discussed as well as the skills needed by the child in learning to read. The Bullock Report also looked at the many reasons at present being advanced as to why some children fail. It was concluded that a child's pre-school experience had an effect on early attempts at reading. The Bullock Report suggested that parents' early involvement with the child's reading was quite significant in terms of language development and the child's concept of reading. Simply reading aloud to the young child while offering the physical comfort of close proximity was reported as a pleasurable experience. Children were able to identify reading as an emotionally satisfying activity and looked upon books as a source of fascination and pleasure. Reading to the young child and helping him to understand the purpose for reading laid the foundations for successful learning to read.

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[1] The Bullock Report, A Language For Life, Report of Enquiry appointed by the Secretary of State for Education and Science under the Chairmanship of Sir Alan Bullock, FBA (London : Her Majesty's Stationery Office, 1975), p.97.

The Bullock Report suggested that "a good reading scheme was one which provided a sound basis for the development of all reading skills in an integrated way".[2] Basal Reading Programmes used in British schools and criticized by The Bullock Report are also currently used in Western Australian and Australian schools. Criticism of 'look and say' and phonic Basal Reading Programmes, especially in the very early stages of reading, gives support for the argument against their use in beginning reading programmes. In the beginning stages of learning to read the syntactic structure of books must relate to the child's own pattern of speech because reading is a process of evolution which is accomplished by much cueing, predicting and sequential probability.[3] These powerful cueing devices are not evident in many of the beginning basal readers.

For almost fifty years reading instruction has been concerned with the development of a vocabulary, controlled and sequentially developed by means of basal readers. Many different approaches to beginning reading have been introduced and supported by a basal reading scheme. The purpose for reading is the acquisition of meaning and the reader's attention is directed towards comprehension rather than word recognition so that the content of beginning reading material requires re-assessment in the light of what is now known about the reading process. The beginning reader needs to read material which makes sense and sounds like language.[4] Children become better readers if they read material that is of vital interest to them. Goodman says that readers "use their language competence to get to meaning"[5] and that the reader finds it easier to read something for which he has a strong conceptual background.[6] It seems therefore that a beginning approach which initially utilizes each child's language and is strongly supported by books which are interesting and in the child's language pattern may expedite the beginning reader's acquisition of meaning.

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[2] The Bullock Report, p.109. [3] The Bullock Report, pp.92 and 105.

Many children are still failing to read at a functional level. The number of students throughout Australia who fail on a minimal reading task was estimated at 7,500 at the ten-year old level and 2,000 at the fourteen-year old level.[7] The Australian Government conducted an investigation and produced a report entitled, Learning Difficulties in Children and Adults in which functional literacy was defined as follows :

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[4] Kenneth S. Goodman, "Miscues : Windows on the Reading Process", in K. Goodman (ed.), Miscue Analysis : Application to Reading Instruction (Urbana, Illinois : ERIC/CRCS, N.C.T.C., 1973).

[5] Goodman, p.9.

[6] Goodman, p.9.

> A person is literate when he has acquired the essential knowledge and skills which enable him to engage in all those activities in which literacy is required for effective functioning in his group and community, and whose attainments in reading, writing and arithmetic made it possible for him to continue to use these skills towards his own and the community's development and for active participation in the life of his country.[8]

The above investigation, referred to as The Cadman Report, found that 25 percent of Australian children were unable to give correct answers to comprehension questions in reading tasks and that many were unable to perform tasks related to reading the newspaper. These same reading tasks were used with children in similar age groups in the United Kingdom, U.S.A. and New Zealand and results indicated comparable performances between Australia and these countries.[9] Principals in primary schools expect 12 percent of the children in their schools to be involved in remedial or corrective reading programmes. In Australia, it has been suggested that there are 150,000 white, English-speaking

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[7] The Parliament of the Commonwealth of Australia, Report of the House of Representatives Select Committee on Specific Learning Difficulties, Learning Difficulties in Children and Adults (October 1976), p.17.

[8] PCA, Learning Difficulties in Children and Adults, p.16.

[9] PCA, Learning Difficulties in Children and Adults, p.17.

Australian adults who are functionally illiterate.[10]

The findings of The Bullock Report and "The Report of the House of Representatives Select Committee on Specific Learning Difficulties" suggest that there is a need for research into how Australian children learn to read and the ideal environment required for the development of a positive attitude to reading. Environment includes school and classroom organization as well as resource materials used for teaching reading. From the research conducted for this investigation it is hoped that suggestions may be made to Western Australian teachers in relation to approaches to teaching reading which may facilitate the first grade child's reading strategy development.

Background of the Problem

Beginning reading programmes in Western Australia generally follow a phonic analytic approach supported by conventional Basal Reading Programmes.[11] A phonic analytic method is one in which a basic sight vocabulary is developed and this is followed by the teaching of phonic and structural analysis and the dictionary skills. Most teachers' manuals connected with Basal Reading Programmes outline the phonic analytic method for teachers to follow. Gray in On Their Own in Reading[12] supported this approach to teaching reading and his work has influenced Basal Reading Programmes for a number of years. Gray emphasized the importance of :

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[10] Rosemary Munday, "The Hidden Shame of Illiteracy", Reader's Digest (1975), p.45.

[11] M.E. Sullivan and P.M. Cox, illustrated by H. Radcliffe Wilson, The Beacon Readers (London : Ginn and Company Ltd, 1928), (revised in 1952) Endeavour Reading Programme (Melbourne : Jacaranda Press, 1967); see also Fred Schonell, illustrated by Will Nickless, Happy Venture (Edinburgh : Oliver and Boyd, 1954); see also Mabel O'Donnell and Rona Munro, illustrated by Florence and Margaret Hoopes, The Janet and John Books (Digswell Place : James Nisbet and Company Ltd, 1949); see also John A. McInness, Young Australia Language Development Scheme (Sydney, Australia : Nelson, 1966).

> Word perception, comprehension of ideas represented by the words, re-action to these ideas and assimilation or integration of the ideas with previous knowledge or experience.[13]

On Their Own in Reading was first published in 1948 and has had, mainly through the continued use of basal readers, a definite influence on reading in Western Australia and indeed Australia.

Currently the aim of reading teachers is to develop a vocabulary of words that the beginning reader recognizes on sight. Basal readers contain words which are considered the most frequently occurring in children's language. The conventional approach to teaching reading is word centred. Children learn word attack skills such as phonics and the use of contextual cues to recognize new words.[14] The first grade child is able to get meaning from oral language but is precluded from using this skill with written language because of the teacher's pre-occupation with letters and words rather than meaning. Goodman pointed out that -

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[12] W.S. Gray, On Their Own in Reading : How to Give Children Independence in Analyzing New Words (Chicago : Scott, Foresman and Company, 1960).

[13] Gray, p.10.

[14] E.B. Smith, K.S. Goodman and R. Meredith, Language and Thinking in School (2nd edition) (New York : Holt, Rinehart and Winston, 1976), p.248.

> Only a small fraction of this power over oral language is put to work through phonics or word recognition approaches to teaching reading.[15]

Even though Basal Reading Programmes have a controlled vocabulary and sequential development of reading skills, they may also inhibit natural reading development in young children.

From one Approach Book, the following text was recorded -

Dick.
Here, Dick.
Here, here.
Nip.
Nip, Nip.
Here, Nip.
Here, Nip.[16]

There is very little meaning in the above text and the child is inhibited in his use of oral language to identify meaning. This simply is not the way children speak. The third book in another Basal Series used the following text -

Look Janet, look.
Come to the shop.
I see a horse.
Come, little dog.
You may look too.

---

[15] Smith, Goodman and Meredith, p.249.

[16] Fred J. Schonell, Happy Venture Approach Book : I Can Read (Edinburgh : Oliver and Boyd, 1971), pp.2-5.

See, Janet.[17]

This extract is again illustrative of the lack of meaning in beginning Basal Series which are concerned with sequential and controlled vocabulary development. The unnatural language pattern and lack of meaning inhibit a child's use of context cues, an essential reading strategy for beginners.

Basal Reading Programmes include a readiness programme and pre-reading books in which visual and auditory discrimination and memory, language and motor skills associated with reading are developed. The Western Australian Education Department advocates a Readiness Programme[18] which extends over a period of up to twelve weeks for most first-grade children even though many are reading or ready to read on entering school. The majority of first-grade children with normal visual and auditory ability are ready for reading. Perhaps there is a need to take more account of the young child's language rather than develop readiness skills which may have little or no relationship to learning to read.

Recent classroom observation of second grade children who have learned to read by the conventional approach supported by basal programmes, showed increased levels of anxiety by refusal to read or nervousness when asked to read orally from library books.[19] Analysis of miscues indicated an over-reliance upon grapho-phonic information and a failure to generate meaning during the retelling session resulted. Children are often constrained in their word recognition by the use of basal programmes[20] and this was observed in these second grade children's substitution errors.

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[17] Mabel O'Donnell and Rona Munro, The Janet and John Books : Out and About (Digswell Place : James Nisbet and Co., Ltd, 1949), pp.2-3.

[18] Education Department of Western Australia, Primary Readiness for Formal Learning, Year 1, Teachers' Notes, (Revised 1975).

A possible explanation for the inhibitive nature of basal schemes is that the first grade child has a speaking vocabulary much in advance of the early basal reader vocabulary and a far more sophisticated set of syntactic patterns of which he has control both receptively and productively. Also many words not represented in basal readers are known to five and six year olds because they have been spontaneously learned. It is generally accepted that there are a few hundred words[21] which occur frequently in practically all reading material, and apart from these, there is no essential core of vocabulary. Most basal readers have their own vocabulary but there is very little overlap between the different series. Possibly the vocabulary in the

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[19] Student Teacher Assignment Report.

[20] Rebecca C. Barr, "The Effect of Instruction on Pupil Reading Strategies", Reading Research Quarterly, Vol.X, No.4 (1974-75), pp.555-583.

[21] Dolch Basic Sight Vocabulary contains 220 words; Harris-Jacobson Core Words for First Grade; Ninety-six Most Common Nouns.

Basal Programmes fails to reflect the vocabulary of today's children.

Kenneth Goodman emphasized that early reading material should be predictable. He stated that,

> Children have to find what they're looking for, what they expect to find. So the text has to be predictable in terms of ideas, concepts, language, whatever.[22]

Because of the stilted sentence structure and concern for controlled vocabulary, the basal readers make no allowance for the child to make predictions about the text. The structure of basal readers fails to utilize the skills of prediction and probability already well developed in oral language. A careful re-assessment of the early reading material is therefore warranted so that children are presented with material "written in natural language patterns, language that reflects the way people speak".[23]

For almost fifty years the conventional approach to teaching reading has been followed in Western Australian schools. The emphasis on word recognition was established in the 1936 Education Department Curriculum which pointed out that :

> One of the aims in the teaching of the mechanics of reading is to furnish the pupil with as many cues as possible for the recognition of words, and phonetic analysis is admittedly one of these cues.[24]

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[22] Scott, Foresman and Company, "Reading : A Conversation with Kenneth Goodman" (1970), p.5.

[23] Scott, Foresman and Company, p.5.

[24] The Education

Current research indicates the benefits derived from a move from the development of word recognition strategies towards a whole language approach[25] or reading for meaning. Goodman stated that :

> This meaning is embedded not in individual words but in the whole context - the sentence, the paragraph, sometimes the entire selection.[26]

In the light of contemporary knowledge of the reading process and the importance of the young child's language, perhaps there is justification for looking at the effect of a language-based reading approach upon a first grade child's reading strategies. Reading strategies to get meaning from print, may be defined as the use a child makes of graphophonic, syntactic and semantic information developed and organized from past experience.

Many studies have concentrated upon reading achievement in first grade,[27] but the learning process involved in the development of reading strategies has been neglected until quite recently. The work of Biemiller (1970), Barr (1974) and Clay (1967) indicated that reading strategies which first grade children form during the initial stages of reading differ as a result of instructional methods.

Department of Western Australia, The Curriculum for Primary Schools (Perth : Government Printer, 1936), p.42.

[25] Scott, Foresman and Company, p.2.

[26] Scott, Foresman and Company, p.2.

[27] Jeane Chall, Learning to Read : The Great Debate (New York : McGraw, 1967); see also U.S. Office of Education, First Grade Reading Studies, The Reading Teacher (October 1966).

One of the differences between the language-based and conventional approaches is the words children experience.[28] The conventional approach has a controlled vocabulary whereas the language-based approach utilizes the oral vocabulary and concepts already developed by the child.

The language-based approach is initially a language experience approach followed by experience with books in which the language is considered to be more closely related to the young child's natural language. Early experience with many forms of literature is also an integral part of the programme. The teacher reads to, and with the child as well as encouraging the exploration of books. This programme has no formal readiness period, but follows the idea that the first grade child has the language and concept development as well as the visual and auditory acuity to read. All he needs is experience with the symbol system of his language.

To discover differences between letters and words, each child needs experience, not in how to look for differences but rather, in what differences to look for.[29] For efficient learning to take place, the beginning reader must discover *for himself* significant differences among letters, words and meaning. It seems that the best way to give a child experience with letters, words and meaning in print is by way of his natural language because this is intrinsically interesting to him and meaning is already implicit therein. Children already have a basis of language which is relevant to the process of learning to read.[30]

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[28] See Appendix A.

[29] Frank Smith, Understanding Reading (New York : Holt, Rinehart and Winston, 1971), p.225.

Statement of the Problem

To study the effect of a language-based reading approach upon the reading strategies of first grade children.

Rationale

A language-based approach to reading utilizes each child's language in the learning to read process. Language is a uniquely human form of communication. According to Lenneberg, language in man is due to species-specific, species-uniform biologic capacities.[31] Language is the tacit knowledge that underlies the overt behaviour of speech. The rules of language are finite, but the number of possible sentences which may be generated is infinite. To speak and understand an infinite number of sentences, the speaker must know a system of rules referred to as the grammar of a language.

Three components of grammar, phonology, syntax and semantics conform to a system of rules, intuitively known. The grammar of a language is processed in terms of phonological, syntactical and semantic rules. Syntactic rules allow the language user to operate between the sound system and meaning system of the language. These three systems of grammar, interrelated within the language, are indivisible as functioning processes from the whole.[32]

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[30] Frank Smith, p.35.

[31] Eric H. Lenneberg, (ed.), New Directions in the Study of Language (Massachusetts : The M.I.T. Press, 1964).

Intuitive knowledge of the rules of grammar is called linguistic competence and performance is the translation of those rules into action. The first grade child has both competence and performance when he enters school. If the child can listen and speak well, then he has the capacity to learn to read and write.

Kenneth Goodman said of reading,

> It is a process, a process of getting meaning from print. And this process has two characteristics. One is that the reader is attempting to get at meaning. The second is that he or she is using whole language to do so.[33]

Reading is a language-based, cognitive process. Learning to read is learning to get meaning from written language.[34] Each child must learn visual distinctive features of letters and words and the semantic features in meaning. To do this he needs experience with letters in words and words in sentences which have meaning for each child. That is, he will have had experience with that particular event or have developed that concept in his own language or background. Goodman emphasized that for the child to read with meaning grapho-phonic, syntactic and semantic information available in print must operate interdependently and simultaneously.[35] These information sources represent cue systems which readers must control and if the child cannot use one of these cue systems, then he has problems with reading. Pearson,[36] in the following Figure 1, offers a "Psycholinguistic Model of Reading", one that shows the information systems operating simultaneously to produce the efficient reader.

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[32] Paul David Allen, "What Teachers Should Know About Language", Language and Learning to Read, ed. Richard E. Hodges and E. Hugh Rudorf (New York : Houghton Mifflin Company, 1972), pp.35-36.

[33] Scott, Foresman and Company, p.1.

[34] Kenneth S. Goodman and Olive S. Niles, Reading Process and Program (Commission on the English Curriculum National Council of Teachers of English, 1970), p.20.

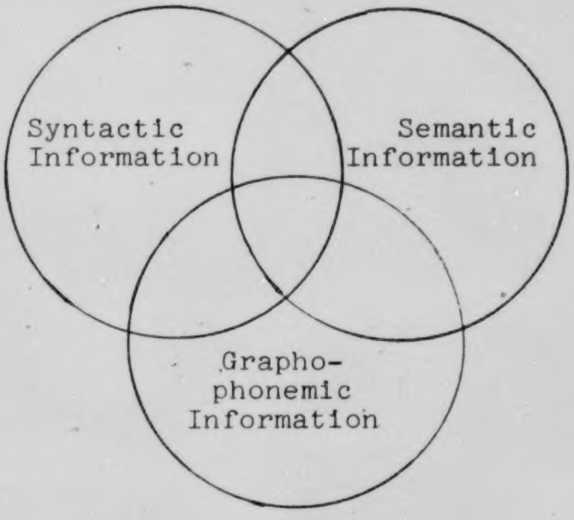

Figure 1

The Three Cue Systems of Language

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[35] Goodman and Niles, p.15.

[36] David Pearson, "A Psycholinguistic Model of Reading", Language Arts, 53 (March 1976), pp.309-314.

Largely because of the materials and methods to which they are exposed beginning readers are frequently so concerned with grapho-phonic information that they do not attend to meaning. Efficient readers on the other hand go directly to meaning as in the language-based approach where grapho-phonic, syntactic and semantic information is used in unison.

When a reading approach focuses heavily on phonic information only, the child is expected to use these skills automatically in conjunction with semantic and syntactic information. What we do not do is have a reading approach that shows a child how to do this. There is a very critical step left out of skills development approaches and that is practising phonic skills in conjunction with semantic and syntactic information. Quite clearly we need to expose the child to phonics in compelling syntactic and semantic contexts which clearly are the ones he has learned in achieving control over his form of oral language.

Purpose of Study

Language acquisition and learning to read are cognitive processes. Language is acquired gradually and the acquisition process is probably never completed, for something always remains to be learned. One difference between the listening and speaking components of the language and reading process is that the former has no conscious beginning for the child whereas learning to read has a sudden onset. Listening and speaking are natural processes whereas currently reading instruction is very formal and deliberate. The child learning to read is expected to put together all the skills required in reading. Because of parental and teacher expectation the level of anxiety for learning to read is high while there is little anxiety in the child's acquisition of oral language. Usually oral language development has immediate reinforcement whereas the benefits of reading are often much too abstract for the young child's comprehension.

The child learns to speak in order to express his immediate needs and oral language develops as he interacts with his environment. Learning to read is initially a visual behaviour because the child must focus attention on the symbol system of his language. The written form of language differs from the oral form because it is more abstract and there is carefully controlled and edited language. Vygotsky wrote,

> Written speech is a separate linguistic function differing from oral speech in both structure and mode of functioning. Even its minimal development requires a high level of abstraction.[37]

This abstract quality of written language is its main stumbling block. Many children do not understand what reading is or what they are supposed to be doing. Usual methods employ imitation, repetition, control of stimuli, correction and expansion. In the light of recent research, perhaps we need to look closely at methodology for teaching reading. A language-based approach to reading utilizes each child's language and cognitive development in the process of learning to read. To do this an understanding of the developmental stage of each first grade child is essential.

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[37] Lev Semenovich Vygotsky, Thought and Language (Cambridge, Mass. : M.I.T. Press, 1961), p.98.

The First Grade Child

The child in his first year at school brings certain skills and knowledge with him when he is about to learn to read. He has extensive knowledge of language which he has acquired with a minimum of formal instruction. Even before overt language develops, each child has commenced the development of cognitive structures which, by the time he commences school, have become tremendously complex. These cognitive structures represent the child's internalized interpretation of the world. The child's processes of thought are the same as an adult's.

In learning to read the first grade child already knows how to look for significant differences within his environment. He knows how to establish equivalent categories within his cognitive structure and how to create and associate feature lists. The young child also knows how to use redundancy and to assimilate new information.[38]

As far as "readiness" is concerned, the first grade child in general has the visual and auditory acuity for the discrimination of letters and words. The child learning to read knows how to look but not what to look for. He needs to learn the nature of the written language or the distinctive features of letters and words and the semantic features of meaning. To do this the child needs to discover the nature of written language for himself and the teacher needs to provide material so that discoveries may be made. The child also must discover sources of redundancy in written language by experience in reading. Visual, acoustic and semantic category associations need to be built up through experience with print. To acquire meaning from print the child must read fast because emphasis upon visual information processing inhibits the acquisition of meaning.[39] As soon as a child hesitates to decode a word, meaning is lost. It seems necessary therefore to introduce a reading approach which takes into account the attainment of the child as far as language and cognitive development is concerned and also one which allows for the simultaneous use of grapho-phonic, syntactic and semantic information. The reading approach should also allow for the child to go directly to meaning right from the start. The purpose of this investigation is to ascertain if a language-based reading approach will provide this type of learning situation for the first grade beginning reader. This approach, it is anticipated, will have a measurable beneficial effect on the learning to read process which is fundamental to all subsequent educational endeavour.

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[38] Frank Smith, p.224.

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[39] Frank Smith, p.226.

CHAPTER II

DEFINITIONS, ASSUMPTIONS, HYPOTHESES AND LIMITATIONS

Introduction

The purpose of this chapter is to present definitions and to explore the role of the assumptions relevant to this study. Hypotheses will be formulated from a series of research questions asked, and the limitations of the study will be outlined.

Definition of Terms

The language-based reading approach. This approach is one which utilizes the oral language and cognitive development of the young child in the beginning reading process. Initially the child reads his own language and then progresses to reading material considered to be closely related to the young child's natural language patterns.

The conventional reading approach. This approach follows a phonic analytic method in which a basic sight vocabulary is developed. The teaching of phonic and structural analysis and the dictionary skills follows. Usually the conventional reading approach is supported by one or more Basal Reading Programmes.

Teaching method. Different instructional techniques the teacher uses are involved in teaching method.

Reading strategies. The use a child makes of grapho-phonic, syntactic and semantic information available, to get meaning from print make up the child's reading strategies.

Reading approaches. Initial instructional methods, experiences and material resources constitute reading approaches.

A reading miscue. An actual observed response in oral reading which does not match the expected response is recorded as a reading miscue.[1]

Miscue analysis. This is a study made of observed responses a child makes in oral reading. These responses provide information about the reading process and a child's reading strategies. Miscue analysis also provides valuable information for planning ongoing reading programmes.

Grapho-phonic information. This involves the following:

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[1] K. Goodman, "Miscues : Windows on the Reading Process" in Miscue Analysis : Application to Reading Instruction. Ed. Kenneth S. Goodman (Urbana, Illinois : ERIC Clearinghouse on Reading and Communication Skills, N.C.T.E., 1976), p.5.

A. Graphic Information : The letters, spelling patterns and patterns of patterns created through white space and punctuation. A word or suffix represents a graphic pattern; a phrase or sentence is a pattern of patterns.

B. Phonological Information : The sounds, sound patterns and patterns of patterns created through intonation (pitch, stress, pause). Read any line on this page and note how these work.

C. Phonic Information : The complex set of relationships between the graphic and phonological representations of the language. Notice here we are speaking of the relationships and not an instructional program for teaching them.

Syntactic information. This involves the following :

A. Sentence Patterns : The grammatical sequences and inter-relationships of language. *The* ______*s* ______*ed the* ______*s*, is an example of a sentence pattern common in English.

B. Pattern Markers : The markers which outline the patterns.

1. Function Words : Those very frequent words which, though themselves relatively without definable meaning, signal the grammatical function of the other elements. Examples : *the, was, not, do, in, very, why, but.*

2. Inflections : Those bound morphemes (affixes) which convey basically grammatical information. Examples : *ing, ed, s.*

3. Punctuation - Intonation : The system of markings and space distribution and the related intonation patterns. Pitch and stress variations and variable pauses in speech are represented to some extent by punctuation in writing.

C. Transformational Rules : These are not characteristic of the graphic input itself, but are supplied by the reader in response to what he perceives as its surface structure. They carry him to the deep structure and meaning. If he is to recognize and derive meaning from a graphic pattern, he must bring these grammatical rules into the process.

Semantic information. This involves the following :

A. Experience : The reader brings his prior experiences into play in response to the graphic input.

B. Concepts : The reader organizes the meaning he is reconstructing according to his existing concepts and reorganizes experience into concepts as he reads.

C. Vocabulary is largely a term for the ability of the child to sort out his experiences and concepts in relation to words and phrases in the context of what he is reading.[2]

Signalling units. These are oral language sequences used by five and six year old children. Consisting largely of function words, these signalling units signal the structure of language.

Function words. When taken in isolation function words have little meaning. They are sometimes referred to as 'empty words', e.g. *the, on, is, a.* When placed in context these words have meaning.

Content unit. The meaning of a sentence is contained within the content unit. It is either a noun or verb phrase used to follow the signalling unit to complete the meaning of a sentence.

Basal reading programme. Usually a basal reading programme contains textbooks, workbooks, resource materials and teacher's manuals or handbooks. The basal readers have a controlled vocabulary and are concerned with the sequential development of the reading skills. The teacher's manual outlines the method to be used, either sight or sound and suggests techniques and materials to reinforce sight vocabulary and skill development.

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[2] Kenneth S. Goodman and Olive S. Niles, Reading Process and Programme (Urbana, Illinois : N.C.T.E., 1970), pp.15 and 16.

Sight methods. These are often referred to as 'look-say' or whole word methods. Sight methods emphasize the visual recognition of whole words for beginning readers.

Sound methods. These methods emphasize the initial learning of letters and their related sounds. Single sounds and digraphs are taught systematically and then this knowledge is used to synthesize words.

Sight word strategy. When a child uses the visual configuration of a word for identification, he is said to have a sight word strategy.

Phonic strategy. A phonic strategy is inferred when the child uses his knowledge of sound/symbol relationships to identify words.

Contextually constrained errors. These are oral reading errors made by the child who uses preceding context to make sense of his reading.

Graphically constrained errors. These errors show a graphic approximation to the printed word.

No response errors. The child refuses or is unable to identify a word and so makes no response.

Self-correction errors. These errors occur when the child, during oral reading, regresses to correct a word which is unacceptable to his identification of meaning. The correction may be accurate or inaccurate, but is usually more acceptable to the child's understanding of the text.

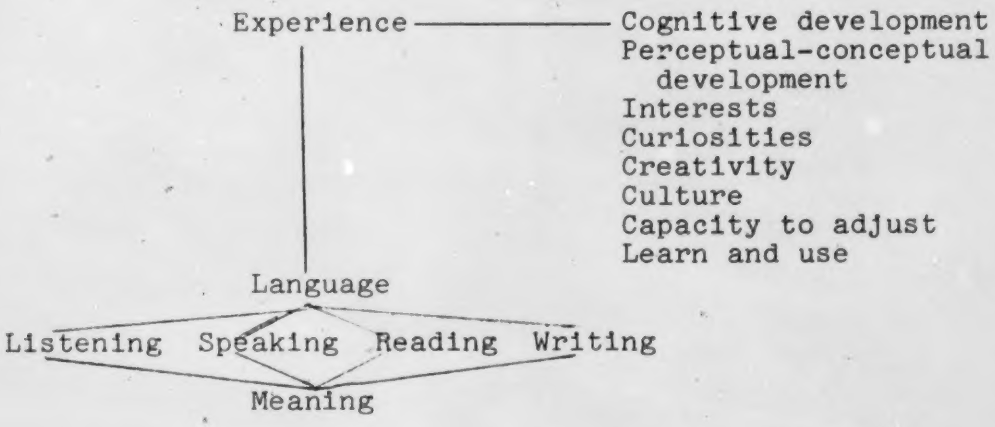
Code emphasis programmes. Initial stress is placed on teaching decoding skills. Two major code emphasis programmes are phonics programmes and linguistic programmes.

Phonic analysis and synthesis. This involves the ability to follow a sounding, blending procedure to produce a whole word.

Cloze procedure. Cloze is an automatic word deletion process whereby words are removed from the printed page. The student must predict the word that was removed and replace it.

Assumptions

Each first grade child commences school with a varied experiential and language background. Cognitive development, perceptual-conceptual development, interests, curiosities, creativity, culture, the capacity to adjust and the ability to learn and use information differs with each child. The main concern of the child is to construct a world which has meaning for him. To do this, facility in all the communication skills must be accomplished so that the child may interpret language in the listening situation, formulate thoughts expressed through speech, interpret thoughts or acquire meaning from print and express thoughts in writing. There is a positive correlation in ability between listening, speaking, reading and writing.[3] An essential intermediate or ultimate goal in any communication skill is meaning. The child on entering school has a complex developmental structure which is used by him to identify meaning. Experience is continually contributing to this structure. Language is part of the complex structure. The child is able to listen and speak when he starts school. Reading and writing are components of the language process which are later learned. The following pattern illustrates this complex co-ordination and integration of learning as the five year old moves into the school environment.


Experience
Cognitive development
Perceptual-conceptual development
Interests
Curiosities
Creativity
Culture
Capacity to adjust
Learn and use
Language
Listening
Speaking
Reading
Writing
Meaning

Pattern of Development of the 5-6 Year Old
in His First Year at School

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[3] Walter D. Loban, The Language of Elementary School Children (Champaign, Ill., National Council of Teachers of English, 1963), p.88.

Five assumptions may be made in relation to the young child learning to read. The first is that oral language is basic to learning to read. A second assumption is that instructional methods affect a child's reading strategies. Reading as a language-based cognitive process may be accepted as a third assumption. Assumption four is related to the reader's use of the three cue systems in language and the fifth assumption is that miscue analysis provides real insight into the reading process.

Assumption 1 : Oral language is basic in learning to read. Language is a significant factor in the child's pattern of development. Marie Clay in her report stated :

> Seen in perspective the child's oral language skills make an excellent starting point since they provide a set of well established stable responses.[4]

Ability to learn to read is influenced by the child's development in oral language. Loban conducted a seven year longitudinal study using 338 kindergarten children from Oakland, California. Data were collected concerning -

a) their vocabulary;
b) their use of oral and written language;
c) their proficiency in reading and listening;
d) teachers' judgments of their skill with language;
e) background information on their health and homes.[5]

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[4] Marie M. Clay, "The Reading Behaviour of Five Year Old Children, A Research Report", New Zealand Journal of Educational Studies, Vol.2, No.1, (1967), p.29.

[5] Loban, p.85.

Those children who were high in general language ability were found to be high in reading ability. Those who were low in general language ability were low in reading ability. It seemed also that this gap between the high and low groups widened from year to year. Loban concluded that ability in spoken language appeared to be a necessary base for success in reading and writing.[6]

Goodman stressed the point that reading is a receptive language process and readers are users of language.[7] General linguistic ability gives the reader an awareness of the possibilities of language and this ability is transferred to written language provided the reading material is suitable, that is predictable in terms of the child's language and experiential background. Goodman suggested that,

> Literacy (reading and writing) should be an extension of the learner's natural language development.[8]

The beginning reader's language ability should be utilized in the initial stages of reading.

A project which was supported by a grant from the Australian Advisory Committee on Research and Development in Education, sampled the oral language and oral language sequences of children at various stages of development. Oral language was audio-taped in order to design a reading programme based upon three dimensions of language; namely syntax, semantics and pragmatics.[9] This project regarded the syntactic dimension as language elements which are sequenced in time, i.e. left to right ordering. The semantic dimension involves the choice of elements and pragmatics involves the relation of elements and their sequences to extra linguistic information.[10]

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[6] Loban, p.88.

[7] Kenneth S. Goodman, "Reading : The Key is in Children's Language", The Reading Teacher (March 1972), p.506.

[8] K. Goodman, p.508.

The investigators planned a reading programme along the following lines :

> The language the child is presented with in these readers must be such that he can apply the rules he already has in his oral system to it and to use them as a stepping stone for the generation of hypotheses about regularities underlying it.[11]

As a result of this intensive study of the oral language of children from two and one-half to six and one-half years of age, the investigators at Mount Gravatt Teachers' College produced a series of reading books[12] which were based on oral language sequences discovered after an analysis of these children's recorded language. The Mount Gravatt project outlined three sections which constitute components of a Language Reading Program.[13] See Figure 2, page 32.

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[9] Mount Gravatt Teachers' College, Language Research Project Research Project 4 (Australian Advisory Committee in Research and Development in Education, 1974).

[10] Mount Gravatt Teachers' College, pp.5 and 6.

[11] Mount Gravatt Teachers' College, p.40.

[12] W.W.M. Hart and B.N. Gray, The Mount Gravatt Developmental Language Reading Program (Sydney : Addison-Wesley Publishers Pty Ltd, 1977).

This programme commences with a language experience approach followed by specially constructed readers containing oral language sequences, called signalling units, of the five and six year old child. These oral language sequences are called signalling units and signal the structure of language.

The Mount Gravatt Language Development Program emphasized the close relationship between oral language and reading. Still in the developmental stages as far as actual reading materials are concerned, it has yet to be established that these readers do facilitate the transition from reading direct language patterns produced by the child to reading oral language sequences identified in this study and ultimately the reading of the work of a variety of authors specifically not translating oral language into written language. The "Mount Gravatt Project" illustrated that oral language sequences used by children in Australia are similar to those produced by children in the United Kingdom and Canada. Books produced as a result of this project took account of signalling units which seemed common to English speaking children in at least three countries.

The signalling unit consists mainly of function words which have little meaning unless expressed in context. Books in The Mount Gravatt Language Development Program

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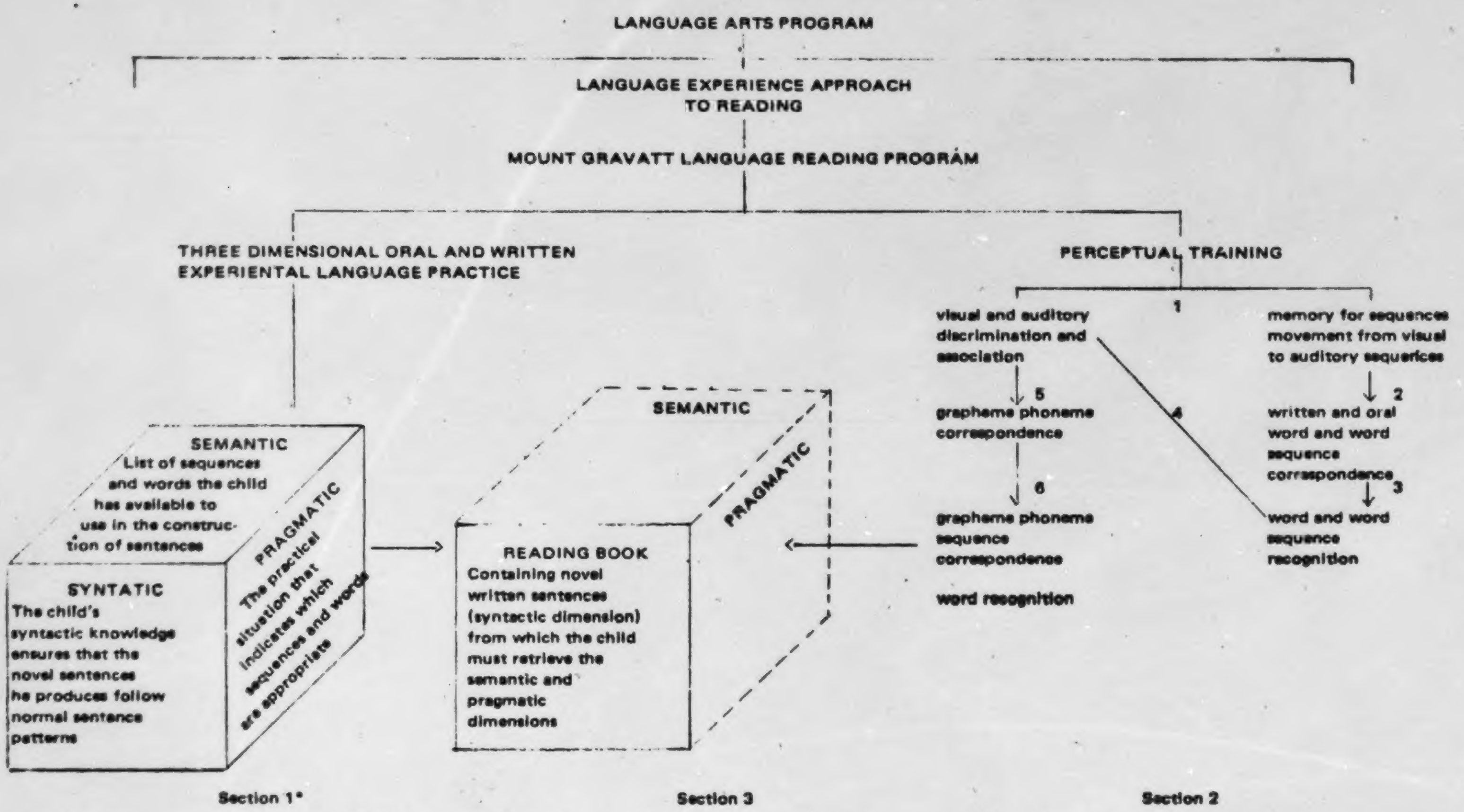
[13] Hart and Gray, p.45.

Figure 2

Outline of Language-Reading Program[14]


LANGUAGE ARTS PROGRAM
LANGUAGE EXPERIENCE APPROACH TO READING
MOUNT GRAVATT LANGUAGE READING PROGRAM
THREE DIMENSIONAL ORAL AND WRITTEN EXPERIENTAL LANGUAGE PRACTICE
PERCEPTUAL TRAINING
SEMANTIC
List of sequences and words the child has available to use in the construction of sentences
PRAGMATIC
The practical situation that indicates which sequences and words are appropriate
SYNTATIC
The child's syntactic knowledge ensures that the novel sentences he produces follow normal sentence patterns
SEMANTIC
PRAGMATIC
READING BOOK
Containing novel written sentences (syntactic dimension) from which the child must retrieve the semantic and pragmatic dimensions
1
visual and auditory discrimination and association
5
grapheme phoneme correspondence
6
grapheme phoneme sequence correspondence
word recognition
4
memory for sequences movement from visual to auditory sequences
2
written and oral word and word sequence correspondence
3
word and word sequence recognition
Section 1*
Section 3
Section 2

* The numbering of sections as 1, 2 and 3 does not imply a strict sequential presentation of each section. Although both 1 and 2 will precede 3, some sections of 1 and 2 will parallel one another.

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[14] Mount Gravatt Teachers College, p. 45.

supply this meaning by following the signalling unit with a content unit which is a noun or verb phrase. The signalling unit is incomplete and more information is required to complete meaning.

Signalling unit	+	Content unit	=	meaning
I'm going		home	=	meaning

Reading books are structured along these lines.

The Frog[15] :	Signalling Unit	+	Content Unit	=	meaning
	I'm	+	a frog		
	That's a	+	creek		
	It's	+	my home		
Look!	I've got	+	legs		
	I'm going to	+	be a frog		
	Look at	+	me		
	I'm	+	a frog		

This project illustrates the belief by the author that ability in language affects success in reading. "Pragmatic Language Lessons"[16] are planned to link practical experience with language to ensure that the signalling and content units are meaningful to each child before he experiences them in reading. To prepare children for wider reading and the acceptance of many different language patterns they need to move beyond personal oral language sequences and experience many different language patterns, all considered natural.

Goodman, Smith, Toban, Hart and Gray and others support the assumption that oral language ability is basic to the learning to read process.

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[15] N.W.M. Hart and B.N. Gray, The Mount Gravatt Developmental Language Reading Program, Teacher's Manual (Sydney : Addison-Wesley Publishers Pty Ltd, 1977), p.66.

[16] Hart and Gray, Teacher's Manual, p.7.

Alice Sheff Cohen said :

> More attention should be given to identify those skills which may provide a closer bridge between oral language and those concepts needed for written language.[17]

To make this connecting link between oral and written language, it is necessary to evaluate and re-assess reading teaching methods and to focus on approaches which retain language as a whole rather than presenting a fragmented version of language to children.

Assumption 2 : Instructional methods affect reading strategies. Research supports the second assumption that the development of reading strategies is affected by instructional methods. Interest in methods for teaching reading was stimulated in 1955 by the publication of Flesch's book, Why Johnny Can't Read.[18] Flesch challenged the then currently used sight method for teaching reading and advocated a return to a phonic approach as the best method to use in beginning reading instruction. This work stimulated many research projects which culminated in Chall's book[19] and "The First Grade Reading Study" which had a Co-ordinating Centre at the University of Minnesota. Guy L. Bond was project director and Robert Dykstra the associate director.[20] The two projects made a critical analysis of existing research and research projects in an attempt to overcome the confusion caused by the work of such authors as Flesch, Terman and Walcutt.[21] Chall discovered that much of the criticism of teaching practices was based on erroneous knowledge.[22] For example, Chall stated that even though Flesch said that in 1955 no phonics were being taught, a study of children's work books and teachers' manuals indicated that phonics were a definite part of the reading programmes.[23]

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[17] Alice Sheff Cohen, "Oral Reading Errors of First Grade Children Taught by Code Emphasis Approach", Reading Research Quarterly, Vol.X, No.4 (1974-1975), p.649.

[18] Rudolf Flesch, Why Johnny Can't Read (New York : Harper and Row, 1955).

[19] Jeanne Chall, Learning to Read : The Great Debate (New York : McGraw Hill Book Company, 1967).

"The First Grade Reading Study" and Chall's work aimed at co-ordinating and analyzing research so that recommendations for improved reading methods would be made. Bond and Dykstra were concerned with the effect reading approaches and methods had upon reading achievement. It emerged very strongly that it was not the approach but the teacher that really made a difference.

The results of these investigations were affected by the evaluation tools used. Achievement tests in reading, test skills specifically developed in a synthetic or analytic phonic approach. The results usually produced indicate a reading age of a child or average reading age over a sample of children. This information is of little value in assessing the effect of methods or approaches upon the child's reading strategies. What reading tests do not do is evaluate the child's acquisition of meaning and the process by which meaning is sought; that is, the child's reading strategies. Chall, Bond and Dykstra indicated that instructional methods and approaches affect reading achievement. What we really need to know is how methods and approaches affect each child's reading strategy development.

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[20] G.S. Bond and Robert Dykstra, "The Co-operative Research Program in First-Grade Reading, Reading Research Quarterly (1967) No.2 (entire issue).

[21] Chall, p.4.

[22] Chall, p.6.

[23] Chall, p.6.

Reading methods may be categorized into either sight or sound techniques. The sight method, often referred to as 'look-say' or 'whole word' emphasizes visual recognition of the whole word for beginning reading. Sound methods emphasize systematic, synthetic phonics for beginning readers. The sight method also commences with whole words and then sound-symbol correspondences are introduced. There is really a difference in emphasis in this classification of methods with sight methods at one end of a continuum and sound methods at the other. There are many variations, adaptations and combinations of these methods found along this continuum that have resulted from the evolution of reading teaching over the last fifty years.

These two studies of first grade reading were contradictory in that Chall's work advocated a code or synthetic phonic emphasis where "The First Grade Reading Study" found the teacher the crucial factor rather than method or materials. Bond maintained that, "There is no one method that is so outstanding that it should be used to the exclusion of others."[24] These studies based conclusions upon first grade children's reading achievement so that much information was lost. What a reading teacher really needs to know is the reading strategies a child employs to derive meaning from print.

Biemiller[25] was concerned with the use a child makes of contextual and graphic information for word identification. Biemiller defined contextual information as information the reader brings to the situation and information contained in the print. Graphic information, according to Biemiller, is the knowledge a reader has about letters and letter sequences for identifying words. The child's use of this information changes during the first year of instruction. Biemiller identified three distinct phases through which a child passes in the development towards concurrent uses of graphic and contextual information. The first phase is characterized by a predominant use of contextual information whereas in the second phase graphic information is predominantly used. In the third phase the child uses contextual and graphic information concurrently.

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[24] Guy L. Bond, "First Grade Reading Studies : An Overview", Issues and Innovations in the Teaching of Reading, ed. Joe L. Frost (Glenview, Illinois : Scott, Foresman and Company, 1967), p.341.

[25] Andrew Biemiller, "The Development of the Use of Graphic and Contextual Information as Children Learn to Read", Reading Research Quarterly (Fall 1970), pp.75-96.

The third phase is considered necessary for effective reading. The better readers progressed to the third phase earlier than the poorer readers. Barr[26] pointed out that Biemiller's three phase developmental pattern could have emerged as a result of instructional method. In the Biemiller study children were taught with basal readers which supported a sight word approach. Children substituted words taught previously in an attempt to identify unknown words and so during phase one were contextually constrained. In phase two, sound-symbol relationships were introduced which induced children to be graphically constrained. They were more concerned with letters and letter sequences. Children then moved to phase three when response errors indicated that both contextual and graphic constraints were operating. During this phase children had begun to expand their use of information and to generalize among letters and words as a result of greater experience in reading. This progressive development was caused by instructional method.

Barr[27] analyzed the response errors of children taught to read by either sight or phonics methods. After a two month instructional period, significant differences were recorded in the response errors of the two groups.

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[26] Rebecca Barr, "The Effect of Instruction on Pupil Reading Strategies", Reading Research Quarterly, Vol.X, No.4 (1974-1975), p.559.

[27] Rebecca Barr, "The Influence of Instructional Conditions on Word Recognition Errors", Reading Research Quarterly, No. 7 (Spring 1972), pp.509-529.

Children who were taught by a sight method substituted words which had been taught at the same time and rarely substituted words taught at a previous time, non-words or words having the same initial letter. On the other hand, children who were instructed by a phonic method substituted non-words or words from the child's aural vocabulary. Some of the substitutions showed the child's use of graphic cues such as initial letter correspondence.

Elder[28] also conducted research into the effect of instructional method on a child's reading achievement. Scottish children taught with a strong phonics emphasis showed fewer word recognition errors than American children taught by a sight word method. The phonic method produced fewer word substitutes but more non-word substitutions than the sight method. This particular study was carried out over a period of two and a half years and Elder found that the Scottish children taught by a strong phonics emphasis showed fewer word recognition errors but showed more non-word substitutions on the Gray Standardized Paragraphs than did the American children who were instructed by a sight word emphasis.

A study designed to determine the effect of instructional method on a first grade child's reading strategies was conducted by Barr.[29] Two sets of materials were used which emphasized either an eclectic method in which the initial emphasis was sight word development or a phonic method and limited sight words. Thirty-two first grade children were randomly selected with half being randomly allocated to each one of the two instructional methods. Children were tested on responses to test and reading text words. The tests used were words selected from Word Learning Tasks[30] and the first eleven words from the reading section of the Wide Range Achievement Test.[31] Each child's response to words was categorized as correct, no response or a substitution response. The substitute response was then classified as a real word or non-word. A phonics strategy was inferred from a production of one or more non-words and a limited number of substitution responses from the reading text word sample. A sight word strategy was inferred if non-words were not evident in responses and if substitution errors were from reading text words.

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[28] Richard D. Elder, "Oral Reading Achievement of Scottish and American Children", Elementary School Journal (January 1971), pp.216-230.

Results indicated that children could be classified using Barr's technique into type of reading strategy and instructional method used. Ten of the sixteen children instructed by the phonics method used a phonic strategy and fifteen of the subjects instructed by sight methods used a sight word strategy.[32] Barr concluded that firstly it was possible to determine the strategies that beginning readers use for translating print to speech. Secondly, translation strategies were influenced significantly by class instruction.[33] Barr also pointed out that instructional method may place constraints upon the child's development of reading strategies. Children may have more difficulty initially in forming reading strategies when instructed by a phonic method than by a sight method.[34] With the phonic method children were unable to treat reading as a natural reading experience and with the sight method children were often constrained by words previously taught. This study emphasized the effect instructional method had upon the first grade child's reading strategies and the necessity for a re-examination of methodology to facilitate reading strategies' development.

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[29] Rebecca Barr, "The Effect of Instruction on Pupil Reading Strategies", pp.555-583.

[30] Rebecca Barr, Word Learning Tasks, unpublished research instrument (University of Chicago, 1971).

[31] J.F. Jastak et al., Wide Range Achievement Test : Reading Section, Level 1 (Guidance Associates, 1965, revised ed.).

Most studies which identified the change in a child's reading strategies as a result of instructional method focused upon the sight or whole word approach. Cohen investigated the effect a phonic approach had on the first grade child's reading strategies and changes which occurred during the final eight months of first grade.[35] An analysis of reading errors showed that no response, nonsense and word substitution errors were the most common.[36] Unlike the Biemiller study, Cohen found little incidence of omission and insertion errors. Because this method of instruction stressed letter blending, there was consequently slower reading at the beginning and the reader made fewer contextually constrained errors. Early errors were more often no response errors. This was explained as the result of instructional method. The subjects were trained in the systematic use of letter sounds and lacked knowledge of how to use other sources of information. The lack of the ability to use alternative information and a limited knowledge of sound-symbol association caused the no response errors observed early in this investigation.

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[32] Barr, "The Effect of Instruction on Pupil Reading Strategies", p.569.

[33] Barr, p.582. [34] Barr, p.583. [35] Cohen, pp.616-650.

With the subjects' growing experience and knowledge of letters, Cohen found an increase in the number of nonsense words.[37] The good readers in this investigation made earlier efforts to use their knowledge of letters than the poorer readers. Late in the school year there was a decline in non-word errors for good readers and an increase in these errors for poor readers. Cohen claimed that nonsense errors may be associated with an instructional method which stressed blending of letter sounds.[38] Cohen also contended that research showed a negligible occurrence of non-word errors where instruction stressed whole words.[39]

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[36] Cohen, p.629.

[37] Cohen, p.643.

[38] Cohen, p.644.

[39] Cohen, p.644.

Cohen observed that both good and poor readers showed a consistent increase in word substitution. With experience the child was able to use more information to identify words. Both meaning and graphic representation was used. This observation was supported by the incidence of self-correction errors which increased with the child's experience with print. Self-correction occurred when the reader reconsidered his original response in the light of further information or more accurate exploration of a word. As well as being a determinant in the beginning reader's development, systematic, synthetic phonics instruction also had a beneficial effect on the poorer reader's progress.[40]

In June 1977 a preliminary study was made of twenty children who were learning to read by the conventional approach (the control group - Group B) and twenty children learning to read by the language-based approach (experimental group - Group A). Two children from each group were deleted because they were repeating first grade.

Children were tested on the Australian Council for Educational Research Word Identification Test.[41] From this the child's number of words recognised and strategies for word recognition were computed.

Table 2 shows that Group B children had a sight voc-

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[40] Cohen, p.648.

[41] A.C.E.R. Primary Reading Survey Tests Levels AA and BB (Melbourne, Victoria : Australian Council for Educational Research, 1972).

Table 1

Results of the ACER Word Identification Test
Group A (Language-Based Reading Approach)

Subjects	Sight Words	Phonic Analysis	Total Word Identification	Sight Word Substitutions	Non Words
1	14	8	22	-	-
2	15	13	28	1	-
3	1	-	1	-	-
4	2	-	2	-	-
5	1	-	1	-	-
6	11	4	15	-	-
7	24	4	28	-	-
8	9	7	16	2	-
9	31	4	35	5	-
10	12	12	24	8	-
11	15	4	19	5	-
12	12	2	14	8	-
13	5	14	19	-	-
14	10	14	24	2	-
15	4	11	15	6	-
16	9	5	14	2	1
17	1	-	1	-	-
18	-	-	-	-	-
	$\bar{x} = 10$	$\bar{x} = 5.6$	$\bar{x} = 15.4$	$\bar{x} = 2.1$	

Table 2

Results of the ACER Word Identification Test
Group B (Conventional Reading Approach)

Subjects	Sight Words	Phonic Analysis	Total Word Identification	Sight Word Substitutions	Non Words
1	9	-	9	12	-
2	11	-	11	4	-
3	18	-	18	16	-
4	12	5	17	4	3
5	18	8	26	3	-
6	8	-	8	4	-
7	12	5	17	4	-
8	8	1	9	3	-
9	10	4	14	3	-
10	11	-	11	3	-
11	13	9	22	4	-
12	13	-	13	3	-
13	9	1	10	4	-
14	10	-	10	5	-
15	12	7	19	2	-
16	7	-	7	8	-
17	10	-	10	10	-
18	8	-	8	5	-
	$\bar{x} = 11$	$\bar{x} = 2.2$	$\bar{x} = 13.2$	$\bar{x} = 5.5$	

abulary mean of eleven words which was raised to thirteen words with a use of a phonic analysis strategy. In Table 1 Group A children had a sight vocabulary mean of ten words which was raised to 15.4 words with the use of a phonic analysis strategy. Sight word substitutions in Group B were, without exception, basal reader words learned previously.[42] A mean of 5.5 words was computed for this type of error in Group B. The mean for Group A sight word substitution error was 2.1 words. A lesser occurrence of this type of error in Group A could be explained by the nature of instruction. Children in Group A had a much broader experience with words[43] in context and showed less constraints in their word recognition strategy.

The most common basal sight word substitution error was saying "ball" for "doll". All children in Group B made this error. Thirteen of the eighteen children said "three" for "tree". These errors showed a constraint children experience as a result of over-reliance upon sight vocabulary. The conventional reading approach developed a basic sight vocabulary and these children were learning words from the Janet and John, and Kathy and Mark Series.[44] Only five of the eighteen children were attempting to analyze and synthesize words. Five of the other children were analyzing words but not able to synthesize words. These children were accustomed to learning words out of context and relied heavily upon the visual patterns of words, letter groups ('ll' in doll and ball) and initial sounds (so for 'sock' and 'white' for 'what' and 'went'). There was a much wider range in the number of words recognized either as a sight word or through phonic analysis and synthesis in Group A.

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[42] See Appendix A. [43] See Appendix A. [44] See Appendix A.

Thirteen of Group A attempted to analyze and synthesize words whereas only eight of Group B attempted this strategy. Nine of Group A substituted sight words and these responses varied greatly whereas all of Group B had this type of substitution error. There was an observed difference between the way a child recognized words in isolation and that difference was caused by the approach being used. Even though Group A had had no formal or sequential phonic development programme, these children had the ability to analyze and synthesize words by this skill being developed within the context of reading.

Three children from Group B and one child from Group A had non-word substitution errors. This observation may be equated with Cohen's findings that this error occurred with the use of a synthetic phonic method when the child had a greater knowledge of letters and letter sequences. Neither Group A nor Group B had had sequential synthetic, phonic development. This test was probably administered too early for non-word substitution errors to be observed in Group B. The children were still concerned with learning whole words.

Research by Barr, Elder, Biemiller, Cohen and others strongly supports the second assumption that a child's reading strategies development is affected by instructional method. Children pass through different phases[45] in the development towards effective reading strategies. This process is probably a combination of a natural development as the child acquires greater experience with print and the effect of instructional method. Cohen supported a study of skills which provide a bridge between oral language and reading. The strong link between oral language and reading also has implications for instructional method. Before instructional method is effective, the reading teacher requires a sound knowledge of the nature of written language as well as an understanding of the reading process.

Assumption 3 : Reading is a language-based cognitive process. A third assumption basic to this study is made in relation to the reading process. Research is supportive of the theory that in learning to read, the child is involved in a cognitive, language-based process.

The child learning to read must respond to a graphic display and then work at reconstructing a message encoded in that graphic display. Understanding of this process means the child must learn how language works and how it is used, that is, how language and thought are interrelated. The beginning reader learns to draw on the sum total of experience and learning. Like the child learning to speak, the child learning to read needs to learn to examine a large sample of print to generate hypotheses on the basis of feedback that is appropriate to the unspoken rules he happens to be testing. The child needs to learn to function as a language user.[46]

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[45] Biemiller, p.75.

Reading is the third of a three stage synthesis of which meaning and language acquisition are the first two.[47] To learn to read the child must have built up internal models that combine the data from all his senses and these models constitute meaning. Gradually the meaning becomes more abstracted. The child learns to make a three way synthesis between spatial signs, the spoken word and meaning. To do this it is necessary to learn rules that transform spatial signs into verbal equivalents, either as overt or sub-vocal speech, followed by the linking of written material to meaning. The child learns the parallel processing of visual input followed by sequential verbal processing.[48]

The child must learn to focus attention on the reading task to produce the best input and learning. This involves learning to direct the gaze towards the stimulus with also an increase in alertness and sensitivity.[49] This habituation of gaze is essential to the building up of the neural model with which meaning and nature of a visual input is checked. To put material into the memory story of the neural model, the child must learn to attend to detail.

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[46] F. Smith, Understanding Reading (New York : Holt, Rinehart and Winston, 1971), p.55.

[47] J. Mackworth, "Some Models of the Reading Process : Learners and Skilled Readers", Reading Research Quarterly (Summer 1972), No.7, p.705.

[48] Mackworth, p.706.

[49] Mackworth, p.707.

To use a neural model to illustrate how reading is learned, it is necessary to show how the hierarchical generalizations for written language become stored in memory. The distinctive features of written language and their relation to letters, words and meanings are learned. Hypotheses about the distinctive features for letters and words are generated by comparing examples of the category being named with non-examples of the same category. Testing hypotheses related to the distinctive features for letters and words result in feature lists being built up.[50] Mackworth suggested that the child learning to read stores each word pattern in visual long-term store, together with the auditory and articulatory programme concerned with saying the word. This storing of the word patterns results in sequential probabilities for letters being built up so that the visual input of a letter will activate another. Smith agreed that discrimination for significant differences among letters so that categories may be established, is best done by learning words in order to identify a letter. Criterial sets of features are formulated. Redundancy exists at the level of letter identification.

The distinctive features of words include the distinctive features of letters so that even though letters may not always be perceived individually in the reading process, knowledge of them is essential to the discrimination of featural differences among words. Feature lists for different categories for words are built up and named. Reading is learned by the use of two sources of information about words. Featural and sequential information about words may be used to eliminate alternatives in word identification. As in letters, redundancy exists among words where featural and sequential information overlaps. Knowledge about letters and words is stored in long-term memory by experience in perceiving differences and sequences. Then categories are formulated within the hierarchical generalizations for written language.

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[50] Smith, p.175.

Words represent the surface structure of reading and are completely irrelevant to reading for meaning. The reader must be aware of letters and words in a passage but meaning is extracted from a sequence of words before individual ones are identified. Learning to read involves making use of information simultaneously at both the surface and deep structure level of language and using elements of both visual and semantic information.[51]

Association between visual symbols and sounds according to a complex set of rules is made. The child already has within his cognitive structure a set of rules (syntax) to allow him to move below the surface structure of language to deep structure. The child has to learn how the rules of syntax are related to the written aspect of language, together with the relation of visual configuration and semantic interpretation. Immediate comprehension from visual input is possible where familiar language patterns are presented. Semantic redundancy in written language is learned in the same way as redundancy among letters and words, that is through experience with meaningful material directly from the child's spoken language. In this way cognitive structures already stored in memory for spoken language are activated by the visual display and cognitive structures for graphic representation is matched and also stored. These cognitive structures for meaning must exist in long-term memory for the visual input to stimulate the matching process described in the Mackworth model.

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[51] Smith, p.207.

Uncertainty about meaning is reduced when the reader is able to eliminate some or all of the alternative meanings the visual input may convey. Identification of meaning will occur when visual input is identified and matched with one of an unknown number of cognitive structures. Reading should be fast so that identification of meaning is not inhibited by an overload of input in short-term memory.[52]

All of the aspects of the visual information-processing system in reading are established through experience.

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[52] Smith, p.226.

The reader learns to look for significant differences or functional equivalences in visual configuration to reduce letter,word or meaning uncertainty. The continued experience in seeing significant differences insures that feature lists that define categories may be built up. Mediated word and meaning identification is learned by the reader but as soon as sufficient categories exist immediate identification of meaning from visual input is essential for efficient reading to occur.[53]

Research by Goodman, Smith, Mackworth and others into the reading process supports the third assumption that learning to read is a language-based cognitive process. The child's experiential background, his cognitive and language development and his experience with the printed form of language influences the building up of cognitive structures which enable the child to identify meaning from his reading. Reading is certainly a complex cognitive process and language is basic to its development.

Assumption 4 : Readers use three cue systems. The reader must be able to use grapho-phonic, syntactic and semantic information available in print. This information must operate interdependently and simultaneously for effective strategies to be in use.

These three cue systems are used simultaneously by a reader. The first cue system is grapho-phonic. The reader responds to sound-symbol relationships and predicts graphic sequences. The second cue system is syntactic. The reader using pattern markers such as function words and inflectional suffixes as cues, recognizes and predicts structures. The semantic cue system is used by the reader to provide meaning. This involves background of experience and concept development.[54] It is not necessary for all these cue systems to operate accurately; in fact this would slow down the reading process. The efficient reader will sample the graphic display, predicting and selecting cues which allow him to go directly to meaning.

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[53] Smith, p.207.

The beginning reader is often constrained by instructional method so that emphasis on grapho-phonic information as in a phonic approach inhibits reading for meaning because the child is intent upon letters. In the sight method children are concerned once again with graphic information so that the syntactic and semantic cue systems are unable to operate effectively. What is required is a method which allows the child to use these cue systems effectively right from the start.

The way in which a child utilizes grapho-phonic, syntactic and semantic information provides the teacher with insights into the reading process and assistance in planning ongoing reading programmes. Ross Latham planned the folling Figure 3[55] suggesting how the reading process might work. This diagram illustrates the use of the three cue system. Latham categorized information into visual and non-visual information. The visual information triggers non-visual information which includes grapho-phonic, syntactic and semantic information interdependently and simultaneously available. Visual and non-visual information interacts to associate appropriate contexts and so results in the identification of appropriate meaning.

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[54] Kenneth S. Goodman, "Psycholinguistic Universals in the Reading Process", Psycholinguistics and Reading, ed. Frank Smith (New York : Holt, Rinehart and Winston Inc., 1973), p.25.

Knowledge of the reading process and the operation of these three cue systems is essential if a teacher is to plan a reading programme which allows a child to use this information simultaneously and interdependently. How these three cue systems work may be studied through miscue analysis.

Assumption 5 : Miscue analysis reveals the reading process. The fifth assumption is that reading miscue analysis produces for the teacher powerful insights into a child's reading and the reading process.

Miscue analysis is a procedure developed by Kenneth Goodman to gain a better understanding of the reading process. In oral reading, miscues are observed responses which do not match expected responses.[56] As the reader searches

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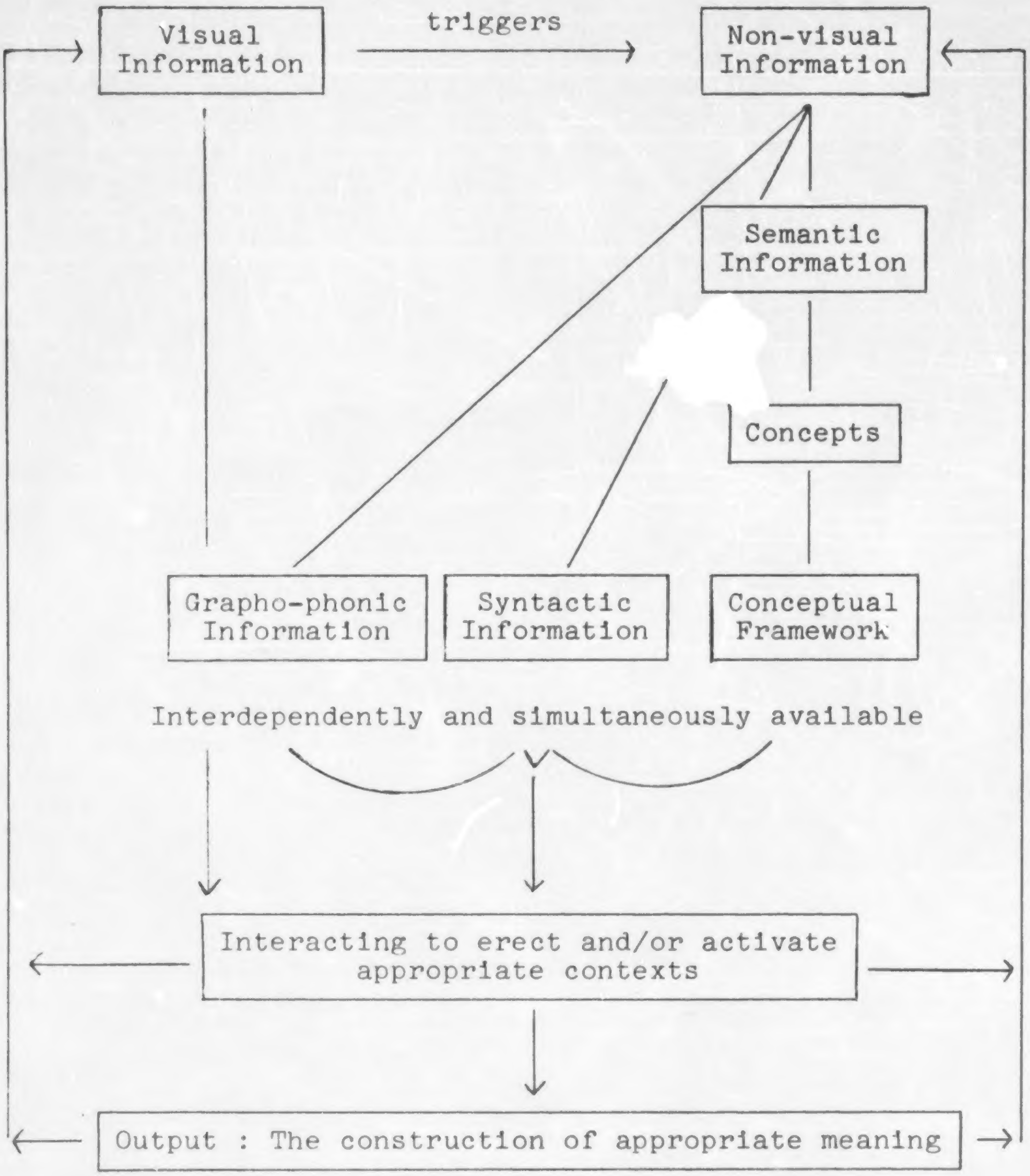
[55] R. Latham, Diagram Suggesting How the Process of Reading Might Work (Claremont College of Advanced Education, 1977).

[56] K. Goodman, "Miscues : Windows on the Reading Process", p.5.

Figure 3

A Diagram Suggesting How the Process of Reading Might Work


Visual Information
triggers
Non-visual Information
Semantic Information
Concepts
Grapho-phonic Information
Syntactic Information
Conceptual Framework
Interdependently and simultaneously available
Interacting to erect and/or activate appropriate contexts
Output : The construction of appropriate meaning

for meaning both accurate and miscue responses occur. Miscue responses provide the observer with valuable information in relation to strategies the reader employs in the search for meaning. Words may be omitted, or substituted, and self-correction may occur, but still the reader is able to produce meaningful language which he is able to understand. Miscues occur because the reader is using his knowledge of language to process print. In a recent audio record of a first grade child's reading[57] repeated miscues indicated the child's application of oral language to reading. The substitution of "what" for "that" and insertions such as -

He kept looking $\overset{out}{\wedge}$ *at the smoke,* and
Then Bob looked out $\overset{of}{\wedge}$ *the window*

indicated the child's use of his natural oral language to get meaning from reading.

Kenneth Goodman developed an analytic taxonomy which considered many aspects of the relationships between expected and observed responses. The observed response may differ from the expected responses in five physical ways : insertion, omission, substitution, reversal and regression.[58] The "Goodman Taxonomy of Miscue" consists of eighteen categories of questions which provide the focus for the analyst to study language and thought processes during oral reading. Less formal techniques for miscue analysis were developed by Yetta Goodman and Carolyn Burke.[59] This procedure concentrates on nine key variables and the patterns of miscues pupils produce.

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[57] A preliminary study of children being taught by either the conventional or language-based approach.

[58] Kenneth S. Goodman, Theoretically Based Studies of Patterns of Oral Reading Performance, U.S. Department of Health, Education and Welfare, Office of Education, Bureau of Research (April 1973), p.7.

Miscue analysis is concerned with a close examination of an individual student's oral reading. Miscues from oral reading are recorded and analyzed on the basis of a series of nine questions asked about each miscue. These nine questions are as follows -

1. Dialect : Is a dialect variation involved in the miscue?
2. Intonation : Is a shift in intonation involved in the miscue?
3. Graphic Similarity : How much does the miscue look like what was expected?
4. Sound Similarity : How much does the miscue sound like what was expected?
5. Grammatical Function : Is the grammatical function of the miscue the same as the grammatical function of the word in the text?
6. Correction : Is the miscue corrected?
7. Grammatical Acceptability : Does the miscue occur in a structure which is grammatically acceptable?
8. Semantic Acceptability : Does the miscue occur in a structure which is grammatically acceptable?
9. Meaning Change : Does the miscue result in a

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[59] Yetta M. Goodman and Carolyn L. Burke, Reading Miscue Inventory Manual : Procedure for Diagnosis and Evaluation (New York : MacMillan Publishing Co. Inc., 1972).

change of meaning?[60]

For miscues to be generated, an appropriate selection of reading material must be made. The material to be read must be a meaningful unit, must generate about twenty-five miscues and must be completed in about twenty minutes. The reader is audio-taped and the code sheet is marked.[61] The subject also retells the story on to the audio-tape. The miscues recorded are then analyzed according to the nine questions listed above. The retelling procedure is also subject to analysis. Points are allocated to the students reiteration of the story in terms of character recall and development, events, plot and theme.[62] These points, along with scores on miscue analysis, are transferred to a "Reader Profile".[63] Repeated and multiple miscues are also recorded on the "Reader Profile". The "Reader Profile" provides the investigator with an evaluation of the reader's strengths and weaknesses or reading strategies, that is the use the reader is making of the three types of information : graphophonic, syntactic and semantic. It is essential that these three cue systems are used simultaneously.

Correction of miscues shows the reader's continual search for meaning. Corrections usually result in language that makes sense. In general, the more proficient reader's miscues show semantic acceptability before correction more often than do less efficient readers, that is -

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[60] Goodman and Burke, pp.49-50. [61] Goodman and Burke, pp.66-67.
[62] Goodman and Burke, pp.68-70. [63] Goodman and Burke, pp.86-87.

Expected Response : *We have to buy feed for the horse.*

Observed Response : *We have to buy rugs for the house.*

This response is semantically and syntactically acceptable although the reader has failed to use grapho-phonic information to identify meaning. The less efficient reader would possibly respond in the following way to the same text -

We have to buy feed for the house.

This reader is using grapho-phonic information and syntactic information, but meaning is lost. The semantic cue system has failed to generate meaning. Even when meaning eludes the proficient reader and a non-word is produced, correct grammatical endings and intonation are often related. The effective reader will correct miscues where meaning is lost and often be unaware a miscue has occurred if meaning has been retained.[64]

The grapho-phonic cue system. The less efficient reader is more concerned with graphic detail than meaning. This reader will have a high degree of graphic correspondence between observed and expected responses even when meaning is lost, have frequent correction of miscues that do not affect meaning and show concern for correct pronunciations which do not necessarily affect comprehension.[65] The proficient reader will generate miscues which are more often than not semantically acceptable. In miscue analysis the quality of the miscue is more important than quantity. The effect a miscue has on meaning is the significant factor in miscue analysis. Goodman stated -

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[64] Goodman, "Miscues : Windows on the Reading Process", p.9.

[65] Goodman, "Miscues : Windows on the Reading Process", p.10.

> The difference between more or less proficient readers is not a difference in the reading process but in how well they are able to use it. Research has made it possible to infer from their miscues the control that readers are exercising over the reading process. It should also provide a basis for instructional procedures to improve that control.[66]

In miscue analysis, every miscue made by a student is analyzed to provide information relating to the graphophonic, syntactic and semantic systems of language. Through miscue analysis the use a reader makes of the graphic and sound systems of the language may be evaluated. Two questions are asked to evaluate this aspect of reading -

> To what degree does the text word and the miscue look alike?
>
> To what degree does the text word and miscue sound alike?

In an analysis of one boy's reading miscues Yetta Goodman[67] found that 81 percent of the expected and observed responses of word substitution were graphically very similar. These substitutions included -

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[66] Kenneth S. Goodman, "What We Know About Reading", Findings of Research in Miscue Analysis : Classroom Implications, ed. David P. Allen (ERIC Clearinghouse on Reading and Communication Skills, National Institute of Education, 1976), p.70.

[67] Yetta Goodman, "I Never Read Such A Long Story Before", English Journal (November 1974), pp.65-71.

Text	Miscue
then	when
the	he
voice	voices
they	then
the	their
though	thought[68]

Only 10 percent of these substitutions showed no graphic similarity at all. The Goodman Taxonomy was used to code substitution miscues for graphic and phonemic proximity.[69] Five substitutions were listed for the word 'canary'. These were then categorized into "High", "Moderate", "Little" or "No Proximity" as follows -

Text :	He had a canary in a cage
Observed Response 1	He had a bird in a cage
or 2	He had a carrot in a cage
or 3	He had a cannery in a cage
Text :	The canary sang sweetly
or 4	The carrot sang sweetly
or 5	The carried sang sweetly

Miscues for canary	Graphic	Phonemic
bird	low	low
carrot	medium	medium
cannery	high	high
carried	medium	medium/high

Qualitative judgments were also made in relation to syntactic and semantic acceptability as in the following list -

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[68] Yetta Goodman, p.67.

[69] Dorothy M. Minosky, "The Three Cue System : Graphophonic", Findings of Research in Miscue Analysis, ed. David P. Allen (ERIC Clearinghouse on Reading and Communication Skills, National Institute of Education, 1970), p.76.

Sentence With Miscue	Graphic Proximity	Phonemic Proximity	Syntactic Accept.	Semantic Accept.
He had a bird in a cage	low	low	full	full
He had a carrot in a cage	medium	medium	full	partial
He had a cannery in a cage	high	high	full	no
He had a carried in a cage	medium	med./high	no	no

It was seen that the best miscue was the one which had both low graphic and phonemic proximity but in terms of syntactic and semantic information "bird" had full acceptability.[70]

While the reader is sampling and predicting, grapho-phonic information is available. This cue system is used to reinforce the syntactic and semantic cue systems. The grapho-phonic cue system provides useful information which reinforces predictions made about the text. Grapho-phonic information may also assist the reader in correcting miscues which do not sound right. As the reader develops, less use is made of the grapho-phonic cue system and more is made of syntactic and semantic cue systems. However, even the proficient reader must fall back on the grapho-phonic cue system when reading difficult material. If a reader does rely heavily on grapho-phonic cues then syntactic and semantic cue systems are impeded and meaning is lost.

Syntactic cue system. In an analysis of one reader's substitution miscues it was found that usually the same part of speech as the text word was used. Seventy percent[71] of one reader's miscues were the same part of speech as the text word they replaced. This indicated that the syntactic cueing system was being used. Because of the interdependence of the three cue system, it is difficult to discuss the syntactic system without the other two. In the following sentences three miscues were recorded -

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[70] Menosky, p.76.

©   care
1. She was a / small yellow canary / hanging very still in the air.

2. I don't understand what's wrong with her,
©   seven
/ said Sven. /

©drug
3. I could scarcely / drag / myself out of bed.

Miscue	Text
care	canary
seven	Sven
drug	drag

These miscues were grapho-phonically very similar to the text, but the reader had not applied the syntactic or semantic cue systems to the material.[72] The following uncorrected miscues were recorded on the same text -

cardinal
1. She was a small canary, hanging very still in the air.

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[71] Yetta Goodman, p.68.

[72] Carolyn L. Burke, "The Three Cue System : Syntactic", Findings of Research in Miscue Analysis : Classroom Implications, p.80.

2. I don't understand what's wrong with her, said
Steve
Sven.

draw
3. I could scarcely drag myself out of bed.[73]

Miscue	Text
cardinal	canary
Steve	Sven
draw	drag

These miscues were grapho-phonically similar, sounded like language (syntactically acceptable) and made sense (semantically acceptable). Because of this the reader did not correct miscues.

Beginning readers have a well developed grammatical structure in oral language. This implicit knowledge is used during the reading process and the naive reader will retain grammatical functions in miscues. Syntax is the bridge between the surface and deep structure of language. Surface structure is the visual array represented by the written form of the message and deep structure is the underlying meaning encoded in it. If the reader is able to recognize the reading material as language, then he has the potential to use the other two interacting cue systems. The essential point being made is that efficient readers make use of all three cue systems. That is, the information available in written language permits the reader to use the three cue systems interdependently and simultaneously.

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[73] Burke, p.81.

Semantic cue system. Miscue analysis provides the investigator with measures in relation to comprehension in reading. Firstly, one score is based on whether the miscue changes the meaning intended by the author and a second score records the proficiency of retelling the story. The most significant factor in reading is the level at which the reader comprehends.[74]

In the Reading Miscue Inventory the semantic cue system is analyzed in relation to two questions about about a miscue -

Question 8 : Semantic Acceptability - Does the miscue occur in a structure which is semantically acceptable?

and

Question 9 : Meaning Change - Does the miscue result in a change of meaning?[75]

Answers to these two questions along with data collected from the retelling sessions provides the analyst with data about how the semantic cue system operates during the reading process.

Self-correction of miscues also provides information about the semantic cue system as it is used for verification in the search for meaning.

Yetta Goodman analyzed the reading miscues of one eighth grade Mexican boy who had a reading age of 5.3 years. Yetta Goodman found that after self-correction, 82 percent of a reader's miscues did not change the meaning of the author. This score was also substantiated in the retelling session when the reader, in spite of fifty miscues, was able to generate extensive, explicit and inferential meaning from a text.[76] The reader's comprehension of meaning does not depend on an accurate rendition of the text. Implicit knowledge of the structure of language and experience has tremendous effect upon the reader's processing of meaning. Miscue analysis certainly provides insight into a child's reading and the reading process.

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[74] See Figure 3, p.56.

[75] Goodman and Burke, p.63.

Derivation of Hypotheses

Hypotheses were formulated after a discussion of each of six research questions asked. These research questions are as follows -

1. Do children exposed to the language-based and conventional reading approaches achieve at similar levels in reading?
2. In the two groups in this investigation, how do the children's attitude to reading compare?
3. Does the reading approach to which children are exposed affect the development of their concept of reading?
4. At the conclusion of the first year of schooling, how do children studied in this investigation, use the three cue systems inherent in written

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[76] Yetta Goodman, p.70.

language, to read?

5. At the end of year one, what differences occur in comprehension and retelling between children exposed to either a language-based or conventional reading approach?
6. At the end of year one, what is the difference in the effectiveness of reading strategies used by first grade children exposed to a language-based or conventional reading approach?

Research question 1. Do children exposed to language-based and conventional approaches to reading, achieve at similar levels in reading?

Achievement in reading usually involves success in a number of skills related to reading. Word recognition is one skill considered important to reading achievement. Comprehension skills must also be included in any reading achievement score. Accuracy when reading is also a skill related to achievement. If a child can recognize words, know their meaning and understand reading material he is said to achieve at a certain level.

Children learning to read by means of either a language-based or conventional reading approach may as a result of learning to read experiences, achieve at different levels. The language-based approach is concerned with a "whole language" system where meaning identification is paramount and the conventional approach focuses on skill development. Perhaps reading achievement will differ as a result.

Hypothesis 1. At the .01 level of significance, for children exposed to either the language-based or conventional reading approach, at the end of year one, there will be no difference in reading achievement as assessed by the ACER Primary Survey Tests Levels AA, Word Recognition[77] and the Neale Analysis of Reading Ability[78] in Comprehension and Accuracy.

Research question 2. How do children exposed to a language-based approach to reading compare with children in a conventional approach to reading, in attitude?

Attitude to reading falls within the affective domain of learning. It may not be separated from the cognitive domain of learning, but is concerned with appreciations, feelings and values of children in relation to reading. Attitude to reading is difficult to measure, especially in first grade children. The teacher's own attitude, attempt to develop attitude, the instructional method and the complex sociological aspects of reading contribute to the child's development of attitude towards reading.

The way a child feels about reading commences to develop as soon as he becomes aware of the process. Interest in the subject matter is a vital aspect of reading and the child who has his attention aroused commences to develop a positive attitude to reading. This child focuses on print, he directs his attention to the learning situation. Attention arousal is the first step a child must make because success in reading contributes to the development of positive attitudes.

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[77] Australian Council for Educational Research, Primary Reading Survey Tests Levels AA and BB (Hawthorn, Victoria : ACER, 1973).

[78] Marie D. Neale, Neale Analysis of Reading Ability (London : MacMillan Education, 1958).

Method of instruction affects a child's attitude to reading. Reading methods which take into account the language of the child cater to that child's self concept. There is a close relationship between language and self concept development. If a teacher understands that reading is an extension of the total language learning process then the child's overall development will proceed along a broad front. If the child understands what reading is, if he has a clear concept of what a word is and accepts the value of literacy, positive attitudes become apparent. The child who comes from a home background where reading is a valued leisure time activity and where he as a reader has an interested adult audience, then this child is advantaged. Environment, both at home and school, contributes towards positive attitudes to reading.

Finally, if the young child experiences success in his early reading, then attitudes of appreciation and enjoyment of reading are instigated. Success is experienced if the child's reading material has meaning for him. Interest is another important aspect of success in reading. Reading material must be meaningful and interesting to the young beginning reader if positive attitudes are to develop.

The child's feelings about reading were explored in a brief oral questionnaire.[79] Responses to the questionnaire may reveal the first grade child's attitude to reading after just one year at school.

Hypothesis 2. At the conclusion of the first year at school, scores on a questionnaire revealed no difference in attitudes to reading of first grade children exposed to either a language-based or conventional reading approach.

Research question 3. Do children exposed to the language-based reading approach have a concept of reading which is different from those children exposed to the conventional reading approach?

A child's concept of reading involves his understanding of the purpose of reading and the nature of the reading process. The child's concepts about reading also involve his ability to associate technical linguistic terms which teachers use to talk about language, that is word, letter, sentence, sound.

Children see family members, teachers and others read but there is usually very little overt behaviour to what is happening. Reading to children is one way to illustrate what happens when a person reads, but not all children have this experience. Perhaps a reading approach which matches the child's language to print may allow him to develop a better understanding of the purpose for and process of reading.

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[79] See Appendix B.

The purpose of this question is to formulate an hypothesis which allowed significant differences in the children's concept of reading to be tested. These children had been exposed to a language-based or conventional reading approach.

Hypothesis 3. At the .01 level of significance, subjects exposed to either a language-based or conventional reading approach, after one year at school will have no difference in their concept of reading as assessed by points allocated to five different categories of responses to a questionnaire.[80]

Research question 4. At the conclusion of the first year of schooling, how do children use the three cue systems inherent in written language, to read?

Three types of information are available in printed material. The reader may use grapho-phonic information, syntactic information and semantic information. The use a child makes of these cue systems is dependent in part upon experiential background, language ability and cognitive ability. Research conducted by Biemiller, Barr, Elder and others indicated that the way a child utilizes these information systems was affected also by instructional method. A reading programme which emphasizes phonics will result in the child's reliance upon grapho-phonic information. Similarly, in a reading programme which emphasizes a sight word approach, the child is concerned with the configuration or graphic representation of a word.

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[80] Diann Ellis and Jerry Johns, "Reading, Children Tell It Like It Is" (Northern Illinois University, 1976) (mimeographed).

Biemiller[81] identified three phases a child passes through in the development towards the use of what he calls graphic and contextual information concurrently. Barr[82] suggested that these three phases are a natural development as the child gains more experience with print.

David Pearson[83] presented "A Psycholinguistic Model for Teaching Reading" which suggested that to read effectively the child needs to use grapho-phonic, syntactic and semantic information concurrently.[84] The effective reader maximizes his reliance on syntactic and semantic information in order to minimize decoding or phonic analysis. The effective reader makes predictions about the text using his knowledge of grammar and the meaning he is constructing as he proceeds. Very little grapho-phonic information is needed by the effective reader to verify his predictions.

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[81] Biemiller, p.75.

[82] Barr, "The Effect of Instruction on Pupil Reading Strategies", p.561.

[83] David P. Pearson, "A Psycholinguistic Model of Reading", Language Arts, 53 (March 1976), pp.309-314.

[84] See Figure 1, p.15.

Pearson pointed out that in a skills development reading programme, the child learns to use the grapho-phonic cue system, but uses it on isolated words. The child fails to see the relationship between the skills activities and reading. When reading, a child needs to use grapho-phonic information in conjunction with syntactic and semantic information, but we do not show him how to do this. Pearson suggested that we need to give the child practice in using the three cue system concurrently by learning phonics in context.[85]

An analysis of reading miscues allows the investigator to make inferences in relation to which cue system or systems the child relies upon to identify meaning. The reading process involves the reader in making predictions based on his knowledge of language and his past experiences. Some of his responses may be inaccurate, but the resultant miscues allow the investigator, using miscue analysis, insight into the reading process as it operates within individual readers in their attempts to read orally.[86]

The question being asked here is related to how the child uses the three cue systems during the reading process. The Reading Miscue Inventory was used to analyze oral reading miscues which were recorded. From these miscues, the child's use of grapho-phonic, syntactic and semantic information was studied and percentages of strengths and weaknesses in these areas were recorded on the "RMI Reader Profile".[87] A first grade child who used these three cue systems effectively had a profile similar to Figure 4. In this "RMI Reader Profile" the child used grapho-phonic information about sixty percent of the time. Even though this affected his identification of meaning to some degree, he used syntactic and semantic information about ninety percent of the time. His miscues sounded and looked like the text words but more important was that the miscues were semantically and syntactically acceptable. He was an effective reader.

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[85] Pearson, p.311.

[86] Goodman and Burke, p.15.

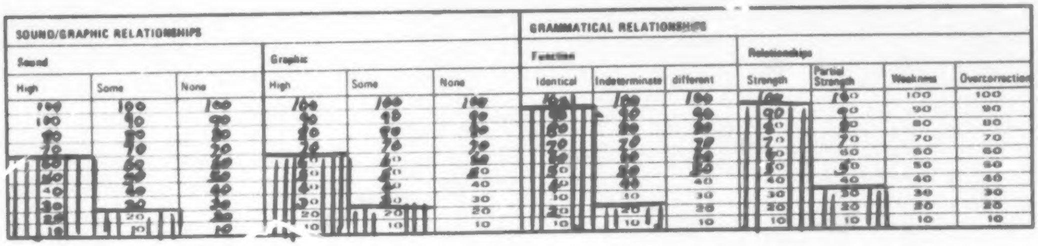

Figure 4

Reader Profile of the Effective
First-Grade Reader

The child who was reading ineffectively had a different "RMI Reader Profile".[88] A first grade child who relied too heavily on grapho-phonic information produced a Profile which indicated the use of this information system up to eighty percent of the time. As a result, meaning was lost and low percentages were recorded for the syntactic and semantic cue systems. The following Profile in Figure 5 exemplified the ineffective reader.

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[87] Goodman and Burke, pp.86 and 87.

[88] Goodman and Burke, pp.86 and 87.

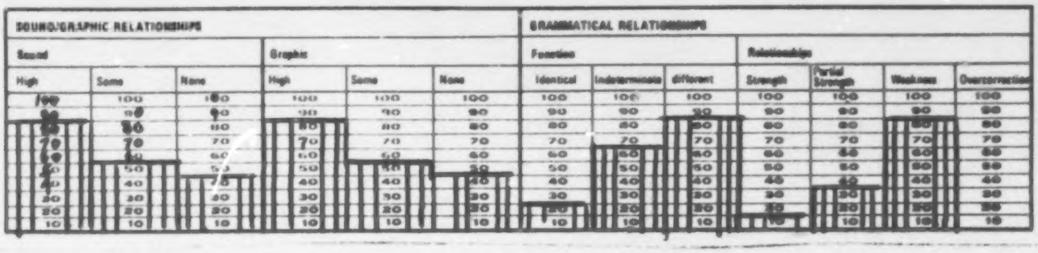

Figure 5

Reader Profile of the Ineffective
First-Grade Reader

From the question, *How do first grade children use the three cue system in reading?*, the following hypothesis was formulated -

Hypothesis 4. At the conclusion of first grade, children exposed to either a language-based or conventional reading approach will produce miscues with no difference in the "RMI Reader Profile"[89] for -

a. Sound/Graphic Relationships.
b. Grammatical Function.
c. Grammatical Relationships.

Research question 5. At the end of year one, what differences occur in comprehension and retelling between children exposed to either a language-based or conventional reading approach?

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[89] See Appendix K.

Reading strategies are concerned with specific systems of the reading process as they function in relationship to the other ongoing systems.[90] These specific systems of the reading process consist firstly of the oral language system. Because of this implicit knowledge of grammar, the child is able to make predictions about written material. Sometimes these predictions are inaccurate but even so miscues which result from inaccuracies show that the child is using his grammatical system to identify meaning, that is non-word miscues usually have the correct inflectional endings such as "shagging" for "sagging".

Secondly, the beginning reader also brings to the reading process the cumulative total of his past experiences. Predictions about written material may be made if the reader is able to equate his experiences with the action in print.

Thirdly, the reader is confronted with reading material which represents the language patterns and experiences of the author. This may place restrictions on the reader if the vocabulary and language pattern vary from his own and he finds predictions difficult to make.

A fourth specific system of the reading process is concerned with the language interaction between the reader and the text. In written language the three cue systems consist of a graphic/sound system, a grammatical system and a meaning system. Goodman and Burke stated -

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[90] Goodman and Burke, p.95.

> To be fully effective, reading instruction, as well as the reading act itself must be based on the ongoing interrelationship between the reader and reading material.[91]

The question being asked in this investigation is related to the way in which children exposed to a language-based approach make use of these interrelated language systems to comprehend written material.

Hypothesis 5. At the conclusion of year one, children exposed to either a language-based or conventional reading approach will have no difference in comprehension and retelling as assessed by the procedure set down in the Goodman and Burke Reading Miscue Inventory Manual.

Research question 6. Is the effectiveness of reading strategies used by children exposed to a language-based approach different from those taught by means of a conventional approach?

Children exposed to the language-based approach had the opportunity to develop reading strategies in a natural, meaningful way. The language-based approach was concerned with children reading their own oral language pattern and then progressing to material considered to be closely related to children's language patterns. Vocabulary development was uncontrolled and reading skills were developed within the context of reading. The conventional approach had a very definite and controlled skill development programme. In the conventional approach (the control group), basal readers were used and vocabulary was controlled.

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[91] Goodman and Burke, p.95.

The purpose of the question is to formulate an hypothesis which allowed differences between the groups in terms of reading strategies' effectiveness, to be noted.

Hypothesis 6. At the .01 level of significance, children exposed to either the language-based or conventional reading approach, after one year at school, will have no difference in the effectiveness of reading strategies.

Limitations of the Study

The development of reading strategies was studied in children exposed to either a language-based or conventional reading approach. The fact that first grade children were randomly selected from only two northern suburban primary schools limited generalization within this parameter. However, because all government schools come under the control of the Education Department, there is uniformity in curriculum, teacher placement policy, resource material provided and supervision. Pre-service training within six teacher education institutions is comparable. Possibly the findings may therefore be generalized to similar socio-economic areas in Perth.

The development of effective reading strategies was the main concern of this investigation. A limiting factor was that to make judgments about reading strategies, reading miscues were analyzed and from them the child's use of the three cue systems was assessed. The number of correct sentences read with accurate meaning identification would also contribute towards the "RMI Reader Profile"[92] but these were not featured. Perhaps a reader's miscues do not furnish enough information and so findings are limited.

The teacher variable may also impose limitations on this research. The experimental group was supervised throughout the school year. Suggestions were made, demonstration lessons were given and reading materials selected and made available by the investigator. The three teachers in the experimental class had studied reading in classes conducted by the investigator. With these controls built into the research the teacher variable was controlled to a degree. The control group teachers were also former students of the investigator and matched the experimental group teachers in sex, age, training and experience. However, teacher attitude, interest and level of understanding of the reading process varied and limitations resulted.

The "Hawthorne Effect"[93] was a further limitation in this study. Interest and motivation were generally high among the three teachers involved in the language-based approach and results may have been affected. However, all six teachers were interested in teaching their children to read.

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[92] Goodman and Burke, pp.86 and 87.

[93] S. Isaac and W.B. Michael, Handbook in Research and Evaluation (San Diego, Cal. : Edits Publishers, 1971), p.58.

This research focussed on individual children's reading strategies. This also imposed a limitation because the number of children involved in the analysis was small. These children were not typical of all first grade children in terms of socio-economic background. Results should be viewed with some caution especially in view of the fact that the Goodman and Burke miscue analysis procedure is a research tool which is still being refined.

CHAPTER III

REVIEW OF RELATED LITERATURE

Introduction

As has been explained in Chapters I and II, the research reported here is mainly concerned with the investigation of the development of reading strategies in first grade children. Thus, this chapter will be concerned, in a major way, with the review of research relating to the reading behaviour of first grade children, the impact of instructional approaches on the development of the reading strategies of first graders in general and the in-depth examination of the strategies acquired by an individual child during his first year at school.

A second area which receives less emphasis than the central theme in this chapter but which also has special significance concerns the assessment of evaluation of : reading achievement, attitude to reading and concept of reading in children at the first grade level. The research relating to these variables will be examined in terms of reading instruction. It will also be concerned with reviewing literature that relates to the growing body of knowledge on the reading process and the way in which the teacher's knowledge of the process affects the four variables set out above. Finally, this chapter will review the research that relates to the way in which miscue and error analysis have been used to determine the extent of a child's control over various reading strategies.

FIRST GRADERS' READING BEHAVIOUR

Studies conducted by Marie M. Clay, Rose-Marie Weber, Alice Sheff Cohen and Yetta Goodman will be reviewed in this section to establish a better understanding of the first grade child's reading development. These four research studies contributed to the investigator's better understanding of the beginning reading process and formed a basis for the procedures adopted in this investigation.

A Longitudinal Study

Clay planned a longitudinal study of beginning readers between the ages of five and six years.[1] Children in this investigation were taught by a method of instruction which "stressed fluency, meaning and 'learning as one reads', with only slight attention to letter-sound association and learning a basic sight vocabulary".[2] This method was supported by a new series of reading books produced by the New Zealand Department of Education.

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[1] Marie M. Clay, "The Reading Behaviour of Five Year Old Children : A Research Report", New Zealand Journal of Educational Studies, Vol.2, No.1, 1967, pp.11-31.

Clay was not concerned with comparing approaches, but was intent upon a study of the behaviour of children who were beginning reading. Careful records were kept on each child's responses to the beginning reading process.

One hundred children were randomly selected from two middle class suburbs, two working class suburbs and one city centre school in a large urban area of over 500,000 population. Weekly records were kept on the child's attempts to read. Reading behaviour was analyzed during the preparation period as well as during the child's reading a basic series of reading books.

Children were given a battery of seventeen tests within two weeks of commencing school. The *Schonell R1 Test* was extended downwards and administered at the conclusion of first year to establish four ability groups.

One of the important findings in this study was that no developmental sequence of reading skills was identified. Secondly, self-correction during the preparation period was observed in 90 percent of the children prior to the first book reading. This behaviour, Clay decided, was indicative of the child who is trying to match visual and speech cues, detect inconsistencies and thus use self-correction behaviour.

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[2] Fred J. Schonell, *Graded Word Reading Test* (Edinburgh : Oliver and Boyd, 1948).

Children went through a stage during the preparation period when fluency gave way to word reading. Clay referred to this as stressed word juncture and it was a reading behaviour shown by 40 percent of the sample three weeks prior to progressing on to the Ready to Read books.[3] This phenomena was also noted by Y. Goodman[4] and could be that period when the child developed the concept of a "word".

Children in the Clay investigation progressed to the "book reading stage" after from five to seven weeks involvement in the preparation period. Results from the Schonell R1 Test enabled Clay to divide the sample into High, High Middle, Low Middle and Low progress groups (H, HM, LM and L). There was a significant sex difference in the H groups with fewer boys than girls making fast progress during the first year at school.[5] ($\chi^2 = 12.01$, df = 3, $.01 > P > .001$).

In terms of quantity of reading during year one, a child in H group read in excess of 20,000 words. The HM child read 15,000 words, the LM child read 10,000 words while the L child read less than 5,000 words. These results give support to the idea that a child learns to read by reading.

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[3] Clay, p.16.

[4] Y. Goodman, "A Psycholinguistic Description of Observed Oral Reading Phenomena in Selected Young Beginning Readers", (unpublished Doctoral Dissertation Wayne State University, 1967), p.287.

[5] Clay, p.13.

Clay also found that error ratios were significantly different for all groups. The H group read at a level of 95 percent accuracy in every hundred words, whereas the L group had only a 33 1/3 percent accuracy in every hundred words. Self-correction was an interesting phenomenon in this study. Self-correction was evident 26 percent of the time with the H and HM groups being involved in self-correction more often than the LM and L groups.[6] Goodman suggested that regressions themselves were not errors, but attempts to correct prior errors. "They are self-corrections which play a vital role in the children's learning to read."[7]

Clay went on to discuss the first grade child's efficiency in processing information. The H and HM groups processed incoming information more efficiently than did the LM and L groups. Even though the HM groups made many errors they were still able to make corrections by active processing. Attempts were made to relate cues to many errors in the LM group, but confusion during processing was evident. The L group made little effort to actively process incoming information.[8]

Data available in the sources of cues made by children as they read indicated -

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[6] Clay, p.18.

[7] Y. Goodman, "A Linguistic Study of Cues and Miscues in Reading", Elementary English (May 1965), p.642.

[8] Clay, p.20.

1. Oral language skills and syntactical expectancies were utilized.
2. Increase in language skills did not increase the size of correlation with reading process.
3. Visual discrimination of letter forms increased slowly during year one. Efficient discrimination of letter forms correlated highly with progress in reading.[9]

In relation to the last point, Clay suggested more direct teaching of letter forms would be beneficial.[10]

Clay also found that the H group read significantly faster than any of the other groups. This meant that information processing was more efficient in this group. Some children who were slower to read used finger or voice pointing techniques to locate a word. This 'prop' was to be retained as a valuable aid needed by some readers. Heavy dependence on oral language skills during the reading process was evident. This dependence on oral language skills supports the case for reading material "rich in cue sources" so that reinforcement and self-correction techniques operate from the very beginning. Clay stated,

> It follows that texts which aim to use the sentence form and experience background of the children for whom they are intended would seem to be more psychologically appropriate than texts based in a logical ordering of linguistic elements.[11]

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[9] Clay, p.22.

[10] Clay, p.28.

[11] Clay, p.28.

Reading vocabulary is built up by the child's experience with words. Habituation[12] results from a child's repeated experience with a number of words so that decoding is unnecessary. Speed records in the Clay report supported the idea that children built up fast recognition responses to words.[13]

The Impact of Instructional Approaches

Weber[14] undertook a study of reading at the Laboratory for Research on Language Skills at Cornell University. This research involved "A Linguistic Analysis of First-Grade Reading Errors" in a first grade class that had learned to read from a basal reading series. Weber used error analysis because she maintained that any error was partially correct and from the correct features of an error, the basis for a reader's response was revealed. The correct features of an error indicated the strategies a child used to arrive at a particular decision. Weber therefore used the correct features of errors observed during oral reading to determine the reading strategies individual children used to identify words.

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[12] Mackworth, "Some Models of the Reading Process : Learners and Skilled Readers", Reading Research Quarterly, Vol. VII, No.4 (Summer 1972), p.707.

[13] Clay, p.28.

[14] Rose-Marie Weber, "A Linguistic Analysis of First Grade Reading Errors", Reading Research Quarterly, Vol.V, No. 3 (Spring 1970), pp.427-451.

Weber believed that ,

> Focusing on the degree to which an error approaches the correct response at different levels of linguistic organization makes it possible to assess children's reliance on various sources of information both independently and relative to one another at different stages of their maturity.[15]

Weber classified errors into -

1. Substitute errors.
2. Omits word(s).
3. Inserts word(s).
4. Reverses or scrambles word(s).

Twenty-one first grade children with a mean age of 6.3 years at the beginning of the school year were involved in this investigation. The class was divided into high and low achievers. Scott-Foresman's The New Pre-Primers and The New Basic Series prepared by Gray, were selected. Reading instruction was concerned with the introduction of whole words which were later experienced in stories. During the second half of the year, some instruction was given in sound-letter correspondences. There was very little practice in systematic word attack.[16]

At the Columbia University, Cohen[17] conducted research into "Oral Reading Errors of First Grade Children Taught by a Code Emphasis Approach". This investigation was conducted in an elementary school in a middle class community in New York City. Data were accumulated on the total number of fifty children, twenty-four boys and twenty-six girls, from two first grade classes. The age range of these children was from 6.0 to 7.0 years and IQ measures ranged from 87 to 143.74. Instruction was based on The Open Court Foundation Program Teacher's Guide[18] which emphasized the sequential teaching of all letter sounds. Initially, children learned sound/symbol associations which were later blended into phonetically consistent words. Each month for the latter eight months of first grade oral reading from instructional and non-instructional material was audio-taped. Errors were recorded and classified as -

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[15] Weber, p.430.

[16] Weber, pp.431-432.

[17] Marie Sheff Cohen, "Oral Reading Errors of First Grade Children Taught by a Code Emphasis Approach", Reading Research Quarterly, Vol.X, No.4 (1974-1975), p.623.

1. No response.
2. Don't know.
3. Insertions.
4. Omissions.
5. Self-correction.
6. Sounding out.
7. Substitution.[19]

"No response" and "Don't know" errors were combined while "Insertion" and "Omission" errors were deleted because too few of this type were recorded. "Substitution" errors were divided into "Nonsense" and "Real" word sub-categories with each of these being ranked from one to five according to graphic similarity to the next word.

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[18] Open Court Publishing Company, Teacher's Guide Open Court Correlated Language Arts Program (La Salle, Ill. : Open Court Publishing Company, 1970).

[19] Cohen, p.625.

The Weber and Cohen investigations are useful in that the former studied errors made by children exposed to an analytic phonic approach whereas the latter investigation was concerned with children who were taught with a word emphasis. In a previous investigation Bleismer and Yarborough[20] came to the conclusion that methodology rather than specific programmes or materials was the decisive factor in the overall effectiveness of reading instruction in grade one. In this study synthetic phonic approaches were significantly more productive in terms of reading achievement than the analytic phonic approaches.[21]

In the Weber and Cohen studies, subjects were divided into good and poor readers or a high and low group respectively. Errors analysed in the Weber study totalled 1,072 with 639 made by the high group and 403 by the low group. Considerably more errors, 20,982, were made in the Cohen study. A total of 11,637 errors were recorded by Cohen from instructional material.[22]

In the Cohen study "No response" errors were initially very high with "Nonsense"[23] and "Word substitution" also being recorded. Weber found that word substitution showed a preponderance among the errors analysed in her investigation. Omissions, insertions and scrambled presentation also featured in the Weber study, but were deleted by Cohen because insufficient errors were noted.[24]

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[20] Emery P. Bleismer and Betty H. Yarborough, "A Comparison of Ten Different Beginning Reading Programs in First Grade", Phi Delta Kappan (June 1965), pp.500-504.

[21] Bleismer and Yarborough, p.504.

[22] Cohen, p.629.

Even though children in the Weber study were not initially taught sound-symbol associations, it was found that many of the substitution errors were words that featured graphically similar initial letters. Better readers approached correct responses more closely than did the poorer readers. Generally, the analysis of errors made by Weber showed their close proximity in terms of letters and meaning.[25]

Cohen found that "No response" errors were high during the first month, but these declined during the second month. "Nonsense", however, increased and stabilised in the latter part of this study. "Word substitutions" showed a sharp increase during the second month and their incidence continued to rise. "Substitution" errors showed a rise in graphic approximation and grammatical acceptability during the year.[26]

There was a noted slowness to start reading because the children were concerned with graphic information. The code emphasis approach used in the Cohen study precludes the beginning reader's use of grammatical structure[27] and so progress was impeded. Weber found that error responses in both the High and Low groups were grammatically appropriate 92.3 percent and 88.9 percent of the time respectively.[28]

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[23] Cohen, pp.429-430.

[24] Weber, p.436.

[25] Weber, p.445.

[26] Cohen, pp.643-644.

Cohen indicated that "poor readers" in her study produced insufficient "real word" content for analysis in terms of grammaticality until the latter half of the study. The "good readers" increase in real words uttered paralleled the increase in their substitution errors being grammatically acceptable.[29]

No attempt was made by Cohen to assess subject's understanding of the passages read. Weber, however, studied error responses to ascertain their semantic appropriateness. Substitution errors were found to be relevant to the preceding content of the story for 67.8 percent of the time for the High group and 66.6 percent of the time for the Low group. These children were also able to use semantic information to identify ongoing material.[30]

One important aspect of these two investigations is that in the code emphasis the reader was slow to start "reading", i.e. for meaning and, in the Weber investigation, children were constrained in their word choices by the introduction of a controlled vocabulary. The language of the beginning basal readers did not conform to the child's expectation and errors resulted.[31]

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[27] Cohen, p.630.

[28] Weber, p.443.

[29] Cohen, p.637.

[30] Weber, pp.449-450.

In both the above investigations a significant number of children were not reading effectively by the conclusion of the first year at school.[32] Neither approach used in the Cohen and Weber studies allowed the child to use his language, conceptual development or experiential background.

The Cohen and Weber studies reached some consensus in the following conclusions. Weber decided that,

> Children from the very beginning expected sentences that they read to conform to the structure of the language that they already knew and that they actually used this knowledge while they read.[33]

Cohen was concerned for the children who were slow to start "reading" and suggested as a result of her investigation that there should be a closer link between oral language and learning to read.[34]

These studies support the ideas inherent in a language-based reading approach for the development of effective reading strategies in the first grade child. It is also demonstrated that error analysis is a useful research tool and provides the teacher with information about the reading development of the first grade child.

In-Depth Study of the Individual Reader

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[31] Weber, p.434.

[32] Tests in each study identified "good" and "poor" readers.

[33] Weber, p.450.

[34] Cohen, p.649.

In 1967 Yetta Goodman from the Wayne State University studied the oral reading of six young beginning readers. Goodman justified her selection of this small sample because -

> Research in child psychology has begun to shift its orientation. There is more evidence placed in studying small numbers of subjects in depth.[35]

Goodman planned a longitudinal study using clinical methodology. Six children, three boys and three girls, were selected by teachers on the basis of their permanence in the community. These children were from varied socio-economic backgrounds. Three were categorized as average readers (AR) and three were predicted as low success children or slow readers (SR). Each child was examined each month for nine months during oral reading sessions which had the following sequence -

1. Informal talk between the child and the researcher.
2. The child reread part of the story read at the previous session.
3. The child read story material he had never seen before.
4. The child retold the story in his own words with the book closed.

The complete interview was audio-taped.[36]

Each subject read unseen material from a basal reader with the researcher supplying character names during the first three sessions. No other assistance was given during oral reading. Overt physical behaviour was noted and each session was audio-taped. Miscues per hundred words (mphw) were recorded and these were then analysed using "Goodman's Taxonomy of Miscues".[37]

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[35] Y. Goodman, p.15.

[36] Y. Goodman, pp.23-24.

Goodman studied the quantitative as well as the qualitative nature of the miscues made by these first grade children. All children studied made miscues during oral reading sessions. Goodman found that the grammatical function of the miscue was the same as the grammatical function of the stimuli. The number of miscues varied from child to child and from reading to reading. The sequence of reading material often caused variations in the number of miscues.[38]

Self-correction behaviour indicated that as the AR students' mphw decreased, the percentage of correction increased. This trend was the same for the SRs but not as strong.[39] These children indicated correction through regression. These corrections were acceptable 75 percent of the time.[40] During oral reading sessions miscues listed were classed as substitution, insertion, omission, reversal,

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[37] Kenneth Goodman, "A Linguistic Taxonomy of Cues and Miscues in Reading". A paper presented at the Symposium of the Psycholinguistic Nature of Reading Process (Detroit, Michigan : Wayne State University, May 1965).

[38] Y. Goodman, p.104.

[39] Y. Goodman, p.64.

[40] Y. Goodman, pp.280-281.

reversal with substitution or substitution with omission and/or insertion.

As in the Weber study, substitution errors in Yetta Goodman's analysis accounted for the highest percentage (57 percent) with omission totalling 31 percent. Insertion and more complex miscues increased with proficiency in reading, but were never significant.[41]

Goodman found that the grammatical function of the miscue was the same as the grammatical function of the stimuli.[42] Grammaticality operated for these children. These findings were supported by Weber who found 91 percent of the errors analysed were grammatically appropriate to the content.[43]

On the grapho-phonic level of the analysis, Goodman observed that children were aware of the graphic relationship of words from the beginning of the study and this awareness increased with experience. Both graphic and phonemic miscues increased as the child developed. Better readers had more accurate discrimination of sound/symbol relationships. Goodman concluded that increasing numbers of graphic and phonemic miscues reflected strong phonics generalizations rather than weak ones.[44]

Goodman decided that the six children studied were aware of the syntactic and semantic properties of their language and used this knowledge in reading. Transformations were often made. As reading ability developed, an increasing number of miscues were made which did not change the syntax or meaning of the reading material.[45] Goodman also found that the ARs were better able to integrate the cue systems than the SRs.

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[41] Y. Goodman, p.87.

[42] Y. Goodman, p.104.

[43] Weber, p.443.

[44] Y. Goodman, pp.259-260.

For comprehension, children were requested to retell the story. The retelling was rated in terms of recall, characterisation and plot. Goodman observed that even with high mphw, the SRs had some degree of comprehension in all the readings which were rated. Such aspects as story materials, interests and prior understanding, corrections and semantic and syntactic acceptability of miscues also affected the child's comprehension. Goodman decided that all the cue systems operate to some extent in beginning readers. Miscues of proficient readers showed the integration of the language cue systems, graphic input, experience and background. The less proficient reader was more often involved with graphic information so that the cue systems were unable to operate interdependently.[46] As these children developed reading ability the quality of their miscues improved in terms of grammatical acceptability.

Research undertaken by Clay, Weber, Cohen and Y. Goodman was concerned with the beginning reading process. Clay presented data on the reading behaviour of children during the first year at school. Children who had learned to read from a basal reading series were involved in Weber's linguistic study of first-grade children's reading errors. Cohen investigated the effect a code emphasis approach had on the oral reading errors made by first-grade children. Yetta Goodman made an in-depth study of the developing reading process in six first-grade children.

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[45] Y. Goodman, p.260.

[46] Y. Goodman, pp.201-202.

Even though each one of these studies concluded that children use their knowledge of language in the critical stages of reading, the reading approaches to which these children were exposed often precluded them from doing this. Yetta Goodman's research is based on the assumption that reading is a psycholinguistic process, but the children studied had learned to read by means of a basic reading series. These four studies were concerned with the development of the reading process in children who were exposed to conventional reading approaches.

The linguistic studies of oral reading errors produced useful information, but there is a need to base research on the assumption that if reading is a psycholinguistic process, then the child should be exposed to an approach which allows him to interact with his language, i.e. a language-based reading approach.

Even though Clay, Cohen and Weber studied children's oral reading errors in terms of grapho-phonic, grammatical and semantic acceptability, there is no attempt to integrate these findings so that information can be gained about how and if the language systems work together. That is, to evaluate the effectiveness of the child's use of reading strategies.

Yetta Goodman decided that the ARs in her study were able to integrate the language cue systems more effectively than the SRs, but once again the child's reading strategies were not evaluated. Yetta Goodman found that miscue analysis provided information as to how a child used his language systems but from this information there is a need to evaluate the effectiveness of a child's reading strategies.

These four studies provide insight into the first grade child's reading strategy development. Conclusions made indicate that whichever approach is used, the child is individually involved in an active use of his language in the beginning reading process. Some approaches perhaps facilitate this use of language, but research by Barr[47] and Biemiller[48] indicated that both meaning and code emphasis produce certain constraints on the child's use of his language in reading. There is a need to study the effect a language-based approach has upon the child's reading and strategy development. This present investigation has evolved, in part, from a close inspection of these four investigations.

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[47] Rebecca Barr, "The Effect of Instruction on Pupil Reading Strategies", Reading Research Quarterly, Vol.X, No.4 (1974-1975), pp.555-583.

[48] Andrew Biemiller, "The Development of the Use of Graphic and Contextual Information as Children Learn to Read", Reading Research Quarterly, Vol.VI, No.1 (Fall 1970), pp.75-96.

THE IMPACT OF READING INSTRUCTION

Research into the influence of instruction on early reading was stimulated during the 1960's by educators questioning methods used for teaching reading. During this period investigations into first grade reading instruction was organised so that assessments could be made of different approaches and their effect on reading achievement.

Approaches to Reading and Their Effect on Achievement and Attitude

Beginning reading instruction has been a major concern of teachers, educators and the general public during this present century. Of recent years, linguists, psycholinguists, psychologists and sociologists have contributed to the growing body of knowledge which attempts to explain how a child best learns to read.

How do children best learn to read? During the years 1962 to 1965 Chall[49] conducted a study into the teaching of reading under a grant from the Carnegie Corporation of New York. Chall was interested in exploring the question of whether children best learn to read by a look-say or code emphasis. Experimental evidence related to beginning reading was sorted according to the following five questions which Chall formulated -

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[49] Jeanne S. Chall, Learning to Read : The Great Debate (New York : McGraw-Hill Book Company, 1967).

1. Which achieves better results - a look-say or a phonic method?
2. Which achieves better results - a method that teaches more phonics or one that teaches less?
3. What do experimental comparisons involving a linguistic approach tell us about the values of such an approach?
4. What do experimental comparisons involving the use of modified alphabets tell us about the benefits of these innovations?
5. Is one method better than another for the child of low ability or socio-economic status?[50]

Chall decided that some of the conflicting evidence on the effect of reading methods was due to the different investigators' use of different measures of performance. For this reason experimental comparisons were made by tabulating findings in terms of the following measures of reading ability -

1. Word pronunciation.
2. Connected oral reading.
3. Phonics.
4. Spelling.
5. Vocabulary.
6. Silent reading comprehension.
7. Rate of reading.
8. Interest, fluency and expression.[51]

Chall found nine studies conducted during the 1930's which compared a look-say with a phonics method. Chall decided that, "different methods produced different results depending upon what was tested and when it was tested".[52]

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[50] Chall, p.100.

[51] Chall, p.104.

[52] Chall, p.105.

Chall summarized these nine studies[53] in terms of the above eight measures of reading ability. It appears that phonic trained children were ahead of look-say children on word recognition and oral reading.

Timing was also an important factor in the testing programme. Chall found that test performances on comprehension and vocabulary on silent reading tests were better during the early stages in the look-say groups. By second grade, the phonics groups performed better than the look-say groups on silent reading tests in comprehension and vocabulary.[54]

Chall found that either systematic or intrinsic phonics approaches resulted in lower comprehension and rate at the beginning of grade one than did look-say approaches, but better results were achieved in comprehension for the phonics groups by the end of second grade.

The studies generally reported on reading achievement though Chall reported one study in which attitude to reading was featured.

This piece of research was conducted in 1916 by Currier and Duguid[55] who found interest, fluency and expression at a high level in the look-say group.[56]

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[53] Chall, pp.106-107.

[54] Chall, pp.106-107.

[55] Lillian B. Currier and Olive C. Duguid, "Phonics or No Phonics", Elementary School Journal, Vol.17 (1916), pp.286-287.

[56] Chall, p.108.

Chall proceeded to summarize twenty-five studies that compared systematic and intrinsic phonics for beginning readers.[57] In these more recent studies (1927-1964) Chall found that in word recognition and oral reading, the systematic phonics group generally were superior to the intrinsic phonics group. Phonics knowledge of the systematic phonics group indicated that they had learned more than the intrinsic phonics group. Chall found that most studies reported that children exposed to systematic phonics performed better on standardized silent vocabulary tests at the conclusion of grades one, two and three than children who learned from an intrinsic phonics programme.[58]

As far as reading rate is concerned, Chall decided that slower rate was recorded in grades one and two for children exposed to systematic phonics.

Chall also studied the effect of the amount of phonics and modified codes had upon reading achievement. Differences in mental ability and social background and the effect of reading method on reading achievement was also investigated. In general, these studies investigated by Chall came out in favour of a systematic phonics approach to reading.

Seventeen correlational studies conducted between 1938 and 1963 that related knowledge of letters and/or of letter -sound relationships and reading achievement were analysed by Chall. Seven of these studies were predictional studies which related knowledge of letter names and/or sounds before they learned to read and reading achievement in grades one, two and three.[59]

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[57] Chall, pp.109-111.

[58] Chall, p.112.

Findings from these analyses indicated that a child's ability to identify letters in kindergarten or the beginning of grade one was an important predictor of reading achievement. Once the child had learned to read, the correlation between letter, letter and/or phonics knowledge and reading achievement were high.

Chall[60] reported the work of Morris[61] who in England in 1959 made a study of the relationships between various school characteristics and reading attainment. Morris found a significant correlation (i.e. 147, $P < 0.001$) between phonics as the beginning method and reading achievement after adjustment for intelligence. The Morris research also indicated a significant relationship between the five year olds' knowledge of phonics and reading achievement.[62]

As a result of her analysis, Chall suggested that the knowledge of letters and sound-symbol associations are essential for success in the early stages of reading.

As was reported in Chapter II, Dykstra, in 1964, became the director of the Coordinating Centre for the First-Grade

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[59] Chall, pp.142-148.

[60] Chall, p.157.

[61] Joyce Morris, Reading in the Primary School : An Investigation into Standards (NFER, England and Wales (London : Newnes Ed. Publishing Co. Ltd, 1959).

[62] Chall, p.157.

Reading Study at the University of Minnesota. In the 1964-65 school year twenty-seven projects in which the efficiency of different approaches was studied were coordinated by Dykstra at the Centre.[63]

Dykstra maintained that the twenty-seven independent studies were well coordinated in research design, instruments of measurement, information gathered and comparability of data collected so that comparisons among studies were made possible. All the data from the twenty-seven independent studies were fed into the Coordinating Centre for further analysis.

Within the "First Grade Reading Studies", those most relevant to this present research were concerned with a language arts or language experience approach. Stauffer[64] from the University of Delaware, asked fourteen questions[65] in order to determine the effects of two methods of beginning reading. These questions were mainly concerned with the effect language arts and basic reader approaches had upon reading achievement which was measured by The Stanford Achievement Test.[66] Attitude to reading was measured by the San Diego Reading Attitude Inventory.[67]

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[63] The First Grade Reading Studies were presented in two issues of The Reading Teacher, Vol.19, No.8 (May 1966) and Vol.20, No.1 (October 1966).

[64] Russell G. Stauffer, "The Effectiveness of Language Arts and Basic Reader Approaches to First Grade Reading Instruction", The Reading Teacher (October 1966), pp.18-24.

[65] Stauffer, pp.18-19.

[66] The Stanford Achievement Test (New York : Harcourt, Brace Jovanovich, 1964).

Twenty first grade classrooms situated in Southern Delaware were involved in Stauffer's investigation. The experimental population consisted of 232 subjects, 119 boys and 113 girls and in the control population there were 201 subjects, 117 boys and 84 girls. The language arts approach involved the children in the development of facility to communicate through oral language (speaking and listening), written language and creative writing, artistic ability in drawing and painting, and dramatic ability. The control group that used basic readers were asked to proceed as in the previous years.[68]

Results indicated that the experimental groups scored significantly better on achievement in reading. Boys and girls in the experimental group scored significantly higher (.001 level) than those in the control groups on "Word Reading" and "Paragraph Meaning". No difference was recorded between the groups in "Word Study Skills" and "Vocabulary". Accuracy during oral reading was significantly higher in the experimental group. The experimental group also scored significantly higher in "Word Recognition" and "Writing Ability" than the control group. When IQ and readiness were held constant, the experimental groups scored significantly higher on all of the Stanford Achievement Test subtests except "Word Study Skills" (.01 level).[69]

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[67] San Diego Reading Attitude Inventory (San Diego, California : Department of Education).

[68] Stauffer, p.68.

In general, the experimental population was superior to the control population in terms of reading achievement. Stauffer concluded that the language arts approach to beginning reading instruction was an effective method. Stauffer was critical of the testing procedure and stipulated that there was a need to design tests which assessed language skills acquired in the language arts approach.[70]

No difference was recorded in attitude toward reading between the two populations or between boys and girls. Stauffer concluded that both approaches produced the same attitude to reading.[71]

Another research project associated with the "First Grade Reading Studies" was conducted by Kendrick[72] from San Diego. Kendrick compared a language experience approach with a basic reader approach to teaching reading. Ten questions were formulated which studied significant differences in reading achievement, listening, speaking, writing, attitude and interest. Questions related to the method most appropriate for different socio-economic levels and boys and girls were also asked.[73]

Fifty-four teachers were randomly sampled from 313 first grade teachers in the San Diego County School districts. There were 411 boys and 371 girls in the language arts approach group and 446 boys and 381 girls in the traditional approach group.

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[69] Stauffer, p.23. [70] Stauffer, p.23. [71] Stauffer, p.22.

[72] William M. Kendrick, "A Comparative Study of Two First Grade Language Arts Programs", The Reading Teacher, Vol. 20, No.1 (October 1966), pp.25-30.

[73] Kendrick, p.25.

At the .01 level of significance, no differences were noted in most of the comparisons. Kendrick also found that the language arts approach increased interest in reading in lower class males.[74]

Hahn,[75] in Oakland County, Michigan, selected thirty-six teachers to participate in the comparative study of three reading approaches. ITA classrooms used sets of Downing material, the language arts teachers used R.V. Allen materials and the basic reader teachers used popular series they had not tried before.

The Stanford Achievement Test, Primary Form, and the San Diego County Reading Attitude Test were administered at the conclusion of the first year at school. No significant differences were noted on the Reading Attitude Survey. ITA and language arts approaches had significantly higher scores than the basic reader approaches on the "Word Reading Test" [76] at the .05 level of confidence.

No significant differences were noted on speed and accuracy between the three groups. Hahn reported the advantage of doing away with readiness books and allowing the child to experiment with his own thoughts and language.[77]

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[74] Kendrick, p.25.

[75] Harry T. Hahn, "Three Approaches to Beginning Reading Instruction - ITA, Language Arts and Basic Readers", The Reading Teacher, Vol.19, No.8 (May 1966), pp.590-594.

[76] Hahn, p.592.

Bliesmer and Yarborough[78] conducted research into ten reading approaches which were categorized into five synthetic phonics and five analytic phonics methods. The null hypothesis tested in this study was that,

> There would be no differences in mean reading achievement scores of ten groups of first grade children when each group had been introduced to reading instruction by a different approach.[79]

Four schools and twenty classrooms were involved in the study. All of the 596 pupils in the twenty classrooms were included in the study. Complete data were obtained for 248 children involved in the analytic phonics programmes and 236 children in the synthetic phonics programmes.[80]

In the five programmes which represented the analytic phonics method, three were supported by basic readers. The other two initially used a language experience approach. The other five programmes which were categorized as synthetic phonics method, also used related basic readers.

The Stanford Achievement Test, Primary I, Form W was administered towards the end of first grade. At the .01 level of confidence, significant differences were found between the means in favour of the synthetic phonics group and in the "Paragraph Reading" subtest. This difference favoured the language experience group. Conclusions drawn indicated that methodology rather than specific programmes or materials used was the most significant fact in overall effectiveness of reading instruction in grade one.[81]

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[77] Hahn, p.594.

[78] Bliesmer and Yarborough, pp.500-504.

[79] Bliesmer and Yarborough, p.501.

[80] Bliesmer and Yarborough, p.501.

Askov and Fischbach[82] expressed concern for the lack of valid and reliable assessment instruments to measure attitude to reading. These authors decided that the forced choice of reading over favourite recreational activities would be the most rigorous attitude assessment.[83] Solitary figures in picture choices were used to assess attitude to reading. This instrument, The Primary Pupil Attitude Inventory,[84] was used and refined during the 1969-1970 school year. The basic research problem was whether a diagnostic teaching approach would result in a more positive attitude toward reading.

Askov and Fischbach explored the relationships between attitude to word reading and reading achievement, sex and grade placement. This research was also concerned with the change of attitude toward reading over a period of time. The Primary Pupil Attitude Inventory and the subtests of the Stanford Achievement Test, "Word Reading" and "Paragraph Meaning", were administered to first and third grade children in one school.[85]

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[81] Bliesmer and Yarborough, p.504.

[82] Eunice N. Askov and Thomas J. Fischbach, "An Investigation of Primary Pupil's Attitudes Toward Reading", The Journal of Experimental Education, Vol.41, No.3 (Spring 1973), pp.1-7.

[83] Askov and Fischbach, p.1.

[84] Eunice N. Askov and Thomas J. Fischbach, The Primary Pupil Attitude Inventory (Madison : The University of Wisconsin, 1972).

The questions asked in relation to this research were as follows -

1. Is attitude towards recreational reading related to achievement, sex and grade achievement?
2. Does attitude toward recreational reading change over the summer vacation?
3. Is change in attitude, if any, related to achievement, sex and grade placement?[86]

Results of the testing programme showed that the mean attitude scores for girls in grades one and three were significantly higher ($P < .001$) than for boys before and after removing the effects of achievement. The higher achievement in the subtest, "Paragraph Meaning", the higher the attitude score when sex, grade and grade by sex were controlled.[87] Askov and Fischbach concluded that a favourable attitude was associated with good readers with few comprehension difficulties. First grade children had the same attitude to recreational reading as third grade children. Stability of attitude scores over the summer was also noted.[88]

Askov and Fischbach pointed out that the relationship between achievement and attitude is quite significant for the teacher. They decided that perhaps the teacher should concentrate on improving reading skills rather than attitude because attitude was reflected in achievement.[89]

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[85] Askov and Fischbach, p.1.

[86] Askov and Fischbach, p.2.

[87] Askov and Fischbach, p.3.

[88] Askov and Fischbach, pp.2-4.

This subsection has been concerned with the effect reading instruction has upon reading achievement and attitude to reading. Chall indicated that synthetic phonics programmes in reading produced higher achievers and Bond and Dykstra decided that the teacher was the significant factor in a child's reading achievement.

Chall reported an early study[90] in which interest was high in a group of children who learned to read by a look-say approach. Stauffer reported no significant difference in attitude between children who learned to read in a language arts or those who learned to read in a basic reader programme. Kendrick found a significant difference in lower class males' interest in reading in favour of a language arts reading approach. ($P < .01$)

Askov and Fischbach related attitude to reading achievement and concluded that perhaps the teacher should concentrate on achievement to develop a positive attitude to reading.

The Child's Concept of Reading

When a child is introduced to reading, he is often confused about what is expected of him because it is not really obvious what a person is doing when he is reading. A child may not have the linguistic knowledge to associate technical terms such as "word" and "letter". To acquire a concept of reading, the child must see meaning in reading and appreciate the purpose of communication.

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[89] Askov and Fischbach, p.4.

[90] Chall, pp.105-108.

Do beginning readers understand what reading is? John Downing[91] stated that because the printed form of language is a comparatively recent evolutionary development and because it is difficult to see what is happening when a person reads, children enter the first stage of the learning to read process in a state of confusion. They do not know the nature of the process or its purpose. Downing stated,

> They do not know or understand what its purpose is. They do not know or understand what kind of activities they must learn. They do not know the basic concepts involved in thinking about the tasks of reading and writing. Hence, the original condition is one of cognitive confusion.[92]

Downing contended that the child eventually progresses towards an understanding of the reading process if reasonably good conditions exist. This initial stage of literacy acquisition is, according to Downing, "a most vital one".[93]

In Edinburgh in 1966 Jessie Reid[94] investigated five year old children's "thoughts about reading". Reid interviewed seven boys and five girls in an Edinburgh school. Reid planned a core of standardized questions, but the interviews with the twelve children aged between 5 years 1 month and 5 years 5 months were generally loosely structured. The interviews were conducted after the children had been two months, five months and nine months at school.

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[91] John Downing, "The Cognitive Clarity Theory of Learning to Read", Literacy At All Levels, ed. Vera Southgate (London : Ward Lock Educational, 1972), pp.63-70.

[92] Downing, p.64.

[93] Downing, p.64.

[94] Jessie Reid, "Learning to Think About Reading", Reading : Today and Tomorrow, eds Amelia Melnik and John Merritt (University of London Press, 1972), pp.203-214.

The children were asked four questions in the first interview -

1. Can you read yet?
2. Have you any books at home or school?
   What is in them?
3. Can your mummy and dad read?
   How does mummy know what bus to take?
4. Can you write something for me?
   Tell me about what you have written.[95]

Reid found that there was a general lack of expectation about what reading was like, what the activity actually was, its purpose, the relationship between reading and writing or the necessary linguistic knowledge to deal with new concepts such as letters and words.

During a second interview children were asked -

1. Show me your reading book. Is it hard?
   Is it harder than the first one?
   What is hard about it?
2. Show me today's page. Can you read it to me?
   How do you know what it says? What do you do if you don't know?
3. Can you write something from your book?
   Show me. How do you know what to put?
   What is 'b' for besides "bed"?[96]

During the three interviews there was a progressive development of terminology. The tendency to call letters numbers was not as prevalent and was replaced by calling them words. There was also an awareness of the alphabetical system of writing and a varying degree of success in using phonic analysis.[97]

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[95] Reid, pp.205-206.

[96] Reid, pp.207-208.

The third interview consisted of the following questions -

1. Show me your reading book.
   What do you do if you don't know a word?
2. What are these spaces for? And All those words?
   Are there any that are not words?
   Show me one that is not a word. What is it?[98]

During this interview Reid observed the developmental process of the concept of words. An awareness of phonic structure was beginning to emerge in both reading and writing. Reid observed a new criterion emerging in the developmental pattern and this was concerned with meaning. Children were becoming aware that a word must mean something.[99]

As a result of these interviews Reid suggested that instruction which developed linguistic terminology needs to use the technical vocabulary for talking and thinking about reading. The approach may make a difference to the child's learning to read.[100]

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[97] Reid, p.209.

[98] Reid, pp.209-210.

[99] Reid, pp.211-213.

[100] Reid, p.213.

Downing[101] employed three types of procedures in a new study in which there was a replication of Reid's first interview, the addition of certain concrete stimuli and an experimental method. Thirteen children, six boys and seven girls aged between 4 years 11 months and 5 years 3 months were involved in the experiment.[102]

The first interview was planned to follow Reid's questions listed above. This was followed by the presentation of concrete stimuli which consisted of a set of eight colour photographs taken in school. Four photographs showed someone reading and four were of non-reading situations. Three other stimuli presented were a book with text only, two pictures, each showing a car, one having an 'L' plate on the rear and three toy buses with different route numbers and destinations. The experiment, which followed the interview and concrete experience, consisted of twenty-three tape-recorded stimuli of five types.

1. A non-human noise (e.g. bell ringing).
2. Human utterance of a single vowel phoneme.
3. Human utterance of a single word (e.g. "milk").
4. Human utterance of a phrase (e.g. fish and chips).
5. Human utterance of a sentence (e.g. Dad's digging in the garden).[103]

The child was first asked to say "Yes" if he heard a 'word' and "No" if it were not a word. In a second test he was asked to say "Yes" for a 'sound' and "No" for 'not a sound'.[104]

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[101] John Downing, "Children's Concepts of Language in Learning to Read", Education Research (February 1970), pp. 106-112.

[102] Downing, p.106.

[103] Downing, p.107.

The results of these three procedures indicated that children have only a vague idea of the purpose of the written form of language. During the "concrete aids" procedure, Downing found that generally children could identify the reading art when they saw it. Six of the thirteen children recognized print in the book. All the children recognized the buses by their numbers. In the experimental task, Downing found that the child had no clear concept of a word or a sound.[105]

Downing decided that the three pieces of evidence supported each other and confirmed Reid's findings that -

1. Young beginners have difficulty in understanding the purpose of written language.
2. They have only a vague idea of how people read and they have special difficulty in understanding abstract terms.[106]

Downing then concluded that teachers need to be concerned with how to help children understand the purpose of written language, and how to develop an understanding of the technical concepts of language. Almy[107] suggested that as early as nursery school a reading environment should be developed in which the child begins to make meaning from printed symbols. Almy added that the environment of the young beginning reader should include people who talk with the child and people who share reading and writing activities with children.[108]

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[104] Downing, p.107. [105] Downing, p.110. [106] Downing, p.111.

[107] Millie C. Almy, "Young Children's Thinking and the Teaching of Reading", Issues and Innovations in the Teaching of Reading, ed. Joe L. Frost (Glenview, Illinois : Scott, Foresman and Company, 1967), pp.89-93.

Mason[109] conducted an investigation in which he asked four questions -

1. Do you like to read?
2. Would you like to be able to read?
3. Does anyone in your family read?
4. Do you like him/her to read?

Another question was included after the first question because children were saying "Yes", they 'liked to read'. The interviewer then asked, "Can you do it all by yourself?"

More than ninety percent of the same said "Yes", they liked to read. Answers to question two followed with children saying "Yes", they would like to learn. In answer to questions three and four, the children named many people in the family who read. Relatives were also listed as readers and children liked them to read.[110]

Children in this study both liked to read and wanted to learn to read. Mason suggested that the first step the teacher should take in the learning to read process is to make sure that the child understands that he does not know how to.[111]

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[108] Almy, p.93.

[109] George E. Mason, "Pre-schoolers' Concepts of Reading", Reading : Today and Tomorrow, eds Amelia Melnik and John Merritt (University of London Press, 1972), pp.200-202.

[110] Mason, p.200.

[111] Mason, p.204.

Elkind[112] pointed out that the concept of a letter, the basic "unit" of reading, gives the young child as many problems as attaining concepts of number, space and time. Elkind also suggested that letters are more complicated than numbers because as well as sequence, they have phonic contextual properties.[113]

Two studies reported by Elkind involved sixteen early readers and thirty-eight non-early readers.[114] The early readers were matched with non-early control children in terms of age, sex, IQ and socio-economic status. All children were administered a large battery of tests. Parents were also interviewed. In both studies it was found that the early readers were superior to the non-early readers in Piagetian measures of conservation. They also performed better on I.T.P.A. scales such as sound blending.

As a result of his research Elkind summarized four requirements for successful beginning reading, namely : a language rich environment, attachment to an adult who models and rewards reading behaviour, attainment of the Piagetian stage of concrete operations, and, instruction on learning to read.[115]

Downing suggested that Stauffer's language experience approach which matches speech to print is meaningful to the beginning reader. Elkind also pointed out that complete understanding of beginning reading is far from complete, but that an analysis of the cognitive aspects of this process continued to add significantly to an understanding of reading achievement.[116]

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[112] David Elkind, "Cognitive Development and Reading", Theoretical Models and Processes of Reading, eds Harry Singer and Robert B. Ruddell (Newark, Delaware : International Reading Association, 1976), pp.331-340.

[113] Elkind, p.333. [114] Elkind, p.334. [115] Elkind, p.337.

THE IMPACT OF READING PROCESS THEORIES AND RESEARCH ON READING INSTRUCTION

The Use of Models

Research into the reading process is fragmentary and for the most part intuitive, but there is beginning to emerge a clearer picture of the nature of this complex task. Chapter II in this research study explored the contributions of Smith[117] and Mackworth.[118] Geyer[119] reviewed forty-eight models of the reading process, all of which were based in research. Geyer concluded that the information processing point of view for the reading process provides a unified approach to developing a better understanding of the reading process.[120]

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[116] Elkind, p.339.

[117] F. Smith, *Understanding Reading*.

[118] Mackworth, "Some Models of the Reading Process : Learners and Skilled Readers".

[119] John J. Geyer, "Comprehensive and Partial Models Related to the Reading Process", *Reading Research Quarterly*, Vol.VII, No.4 (Summer 1972), pp.541-586.

[120] Geyer, p.841.

A communication model. Ruddell[121] based his communication model in the area of psycholinguistics. Ruddell saw the relationship between psycholinguistics and reading instruction in the understanding that the former is concerned with language processing and reading is a complex psycholinguistic behaviour which,

> Consists of decoding written language units, processing the resulting language counterparts through structural and semantic dimensions, and interpreting the deep structure data relative to an individual's established objectives.[122]

Ruddell suggested that language may be studied from three levels. Firstly, the surface levels which encompasses morphemes and syntactic structures. It is at this level that reading instruction involves the decoding process. The second level is concerned with structural and semantic readings. Thirdly, it is in the deep structure of language that the syntactic and semantic components of language are integrated, so that interpretation and storage may be made.[123]

Ruddell studied the decoding process which he decided involved the discovery of the connections between printed and oral units. It is during this process that grapheme-phoneme correspondence is developed.[124]

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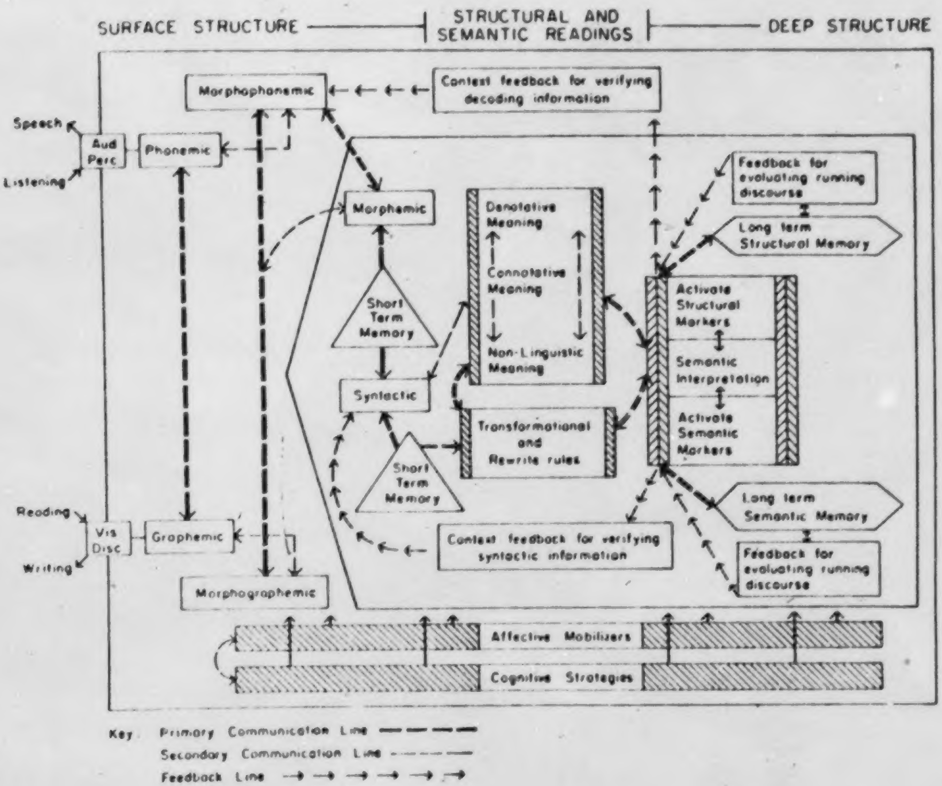
[121] Robert B. Ruddell, "Psycholinguistic Implications for A System of Communication Model", *Theoretical Models and Processes of Reading*, eds Harry Singer and Robert B. Ruddell (Newark, Delaware : International Reading Association, 1976), pp.452-469.

[122] Ruddell, p.452. [123] Ruddell, p.453. [124] Ruddell, p.453.

Within the comprehension process, relational meaning and lexical meaning are important. Ruddell also discussed effective mobilizers and cognitive strategies in relation to this process.

Figure 6

Systems of Communication Model


SURFACE STRUCTURE
STRUCTURAL AND SEMANTIC READINGS
DEEP STRUCTURE
Morphophonemic
Context feedback for verifying decoding information
Speech
Listening
Aud Perc
Phonemic
Feedback for evaluating running discourse
Long term Structural Memory
Morphemic
Denotative Meaning
Connotative Meaning
Non-Linguistic Meaning
Short Term Memory
Activate Structural Markers
Semantic Interpretation
Activate Semantic Markers
Syntactic
Transformational and Rewrite rules
Short Term Memory
Long term Semantic Memory
Reading
Writing
Vis Disc
Graphemic
Context feedback for verifying syntactic information
Feedback for evaluating running discourse
Morphographemic
Affective Mobilizers
Cognitive Strategies
Key
Primary Communication Line
Secondary Communication Line
Feedback Line

Ruddell projected a communication model[125] and used the following description of the process. In reading, relationships are established between graphemic and morphophemic systems and the phoneme and morphophonemic systems respectively. The development of cognitive strategies will allow the child to study alternatives to decoding words. Language in process is chunked by the syntactic system. Next, meaning is established by the interaction of structural and semantic readings. Finally, information is stored in long term structured and semantic memory.

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[125] Ruddell, p.465. See Figure 6.

The Goodman model.[126] A model of the reading process was advanced by Goodman to show that reading is a selective process rather than the precise, detailed, sequential perception of letters, words and large language units.[127]

Goodman's model is presented in the form of a flow chart which may be applied to fluent or beginning readers. Goodman stressed the fact that a reader is involved in an active search for meaning during an interaction between thought and language.[128]

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[126] Kenneth S. Goodman, "Reading : A Psycholinguistic Guessing Game", Theoretical Models and Processes of Reading, eds Harry Singer and Robert B. Ruddell (Newark, Delaware : International Reading Association, 1970), p.272. See Figure 7.

[127] K. Goodman, "The Reading Process : Theory and Practice", Language and Learning to Read, ed. Richard E. Hodges and E. Hugh Rudorf (Boston : Houghton Mifflin Company, 1972), pp.154-155.

[128] K. Goodman, "Reading : A Psycholinguistic Guessing Game", p.260.

Figure 7: Flow Chart of Model of Reading Process was removed due to poor reproducibility.

Goodman postulated four basic effective strategies that he suggested a reader must employ during the reading process. The child must develop -

1. Effective strategies for selecting the most useful cues from grapho-phonic, syntactic and semantic information available.
2. Effective strategies for guessing a deep structure so that he may derive meaning.
3. Effective strategies for testing guesses.
4. Effective strategies for correcting. If the reader realises he has made a miscue he must learn to regress so that information may be organised for more effective processing.[129]

Goodman's theory of the reading process incorporates linguistic and psychological principles which are based on the observed behaviour of readers. Goodman believed that,

> Eventually, the time will come when reading materials and methods will be solidly based in an articulated theory of reading instruction.[130]

Goodman indicated that, at present, there is no fully articulated theory of the reading process. However he presented eight essential components of an instructional theory[131] which are based in the psycholinguistic nature of the reading process. Goodman contended that,

1. Reading must be concerned with the acquisition of meaning. Instruction must be comprehension

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[129] K. Goodman, "The Reading Process : Theory and Practice", pp.154-155.

[130] K. Goodman, "The Reading Process : Theory and Practice", p.155.

[131] K. Goodman, "The Reading Process : Theory and Practice", pp.157-159.

centred.

2. The phonological, grammatical and lexical components of the language systems are interdependent. Instruction must be planned to present language in its total form.

3. Language exists only in the process of its use. Instruction must view and deal with language in process.

4. Beginning readers are competent language users. Instruction must utilize this competence in the initial stages of reading.

5. Children will find it easier to read language that is familiar and natural to them. Instruction must be meaningful and reinforce the purpose of communication.

6. The child must learn effective strategies for reading. Instructional techniques must allow for learning through experience with print.

7. The child must experience different forms of written language and develop special strategies for comprehension. Instruction must therefore ensure that children experience these different forms of language, initially by listening and later by reading a broad and interesting range of material. This material should include language patterns, traditional literary language and concise, scientific language necessary for reading in the content areas.

8. A reader will understand material which is in his language and within his conceptual and experiential background. Any new concepts within the reading material must be based on prior learning. This means that careful selection of reading material must be made.

Goodman said,

> Materials for reading instruction must involve natural language, they must be highly predictable on the basis of the learner's language, and they must involve meaning within

> the learner's graap, that is they must be related to the reader's linguistic competence and his experience.[132]

A Challenge to Present Instructional Methods

On the basis of his theory of the reading process, Goodman made a number of observations concerning instruction. These include -

1. Teaching new words out of context seemed to be unnecessary.
2. Correcting children during oral reading inhibited the use of self-correction, an important reading strategy.
3. Eliminating regressions in reading is undesirable because this is an important learning technique.
4. Whole class learning of phonic skills is questionable because of the diversity of the reading strategies each child develops.
5. Focusing on words rather than language is contrary to the effective use of reading strategies.[133]

Gutknecht[134] from North Florida identified the above teaching techniques in five classroom settings. Firstly, the teaching of phonics to a whole class, then the learning of language rules by the whole class. Thirdly, "reading in turn" around a group circle in the classroom was described. A fourth scene, identified the teacher who translated the child's language to socially acceptable language to record an experience story. Scene five showed the teacher introducing the "new words" for a story prior to reading that story.

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[132] K. Goodman, "The Reading Process : Theory and Practice", p.159.

[133] K. Goodman, "A Linguistic Study of Cues and Miscues in Reading", p.643.

[134] Bruce A. Gutknecht, "How Do You Teach Reading?", *Elementary English*, 50 (January 1973), pp.78-80.

Studying Gutkneckt's classroom settings in terms of Goodman's theory of the reading process shows that overemphasis on one reading strategy as in scene one caused the reader to use phonemic and graphic information to the exclusion of syntactic and semantic information. The learning of language rules as in scene two probably stifles the child's use of his natural language ability. Young children already implicitly know their language rules. Scene three supported the assumption that each child in the group reads at the same rate and with the same understanding. Research[135] indicates the wide range of abilities found in the beginning reader. Correction of oral reading during "reading around the circle" precludes the child's use of self-correction, an important reading strategy. Scene four indicated the imposition of unfamiliar language patterns when the child is matching speech to print. Confusion would probably result during the initial stages of reading. Drilling of words in isolation has been shown as unnecessary because children will recognise many of these words when they appear in context.[136]

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[135] Clay, p.26; see also Y. Goodman, "A Psycholinguistic Description of Observed Oral Reading Phenomena in Selected Beginning Readers", p.263.

Through an analysis of the semantic appropriateness of reading errors, Weber[137] found that first grade children transferred their knowledge of oral language to reading. Weber also decided that children expected the sentence structure in their reading material to conform to their personal sentence structure. These findings have important implications for reading instruction and the selection of reading material in the initial stages of learning to read. Careful selection of an approach and materials related to the child's language allows him to meet his expectations when reading. Research seems to justify a reading approach which is language-based.

Miscue Analysis to Determine Reading Strategies

Goodman[138] believed that correct responses in reading tends to obscure the way in which a child achieves that response. Miscues that a reader makes reveals the process by which the reader arrives at that response because any miscue is partially correct.[139] Deviations from the correct response reveal to the teacher the reading process. Goodman[140] selected an extract which was considered difficult for a proficient fourth grade reader. The recorded miscues by this reader on this extract were as follows -

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[136] K. Goodman, "A Linguistic Study of Cues and Miscues in Reading", p.641.

[137] Rose-Marie Weber, "A Linguistic Analysis of First-Grade Reading Errors", Reading Research Quarterly, Vol.V, No.3 (Spring 1970), pp.427-451.

[138] K. Goodman, "Reading : A Psycholinguistic Guessing Game", p.261.

[139] Weber, pp.429-430.

"If it bothers you to think of it as baby sitt-
ing", my father said, "then don't think of it as
baby sitting. Think of it as homework. Part of
your education. You just happen to do your study-
                              the
ing in the room where your baby brother is sleeping.
That's all."

He helped my mother with her coat, and then
                                                  Ⓒ hoped
they were gone. So education it was! I opened
a   sounds
the dictionary and picked out a word that sounded
good.

Ph   he
"Philosophical!" I yelled. Might as well
what it means   1) Phizo 2) Phiso-soophical
study word meanings first. Philosophical :
                                           his
showing calmness and courage in the face of ill
1) fort 2) future 3) futshion
fortune.

I mean I really yelled it. I guess a fellow has
to work off steam once in a while.[141]

Goodman analysed these miscues to determine the readers' strategies.[142] Miscues made during oral reading were -

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[140] K. Goodman, "Reading : A Psycholinguistic Guessing Game", p.261.

[141] William D. Hayes, "My Brother Is A Genius", Adventures Now And Then, Book 6, Betts Basic Readers (third edition), Emmett A. Betts and Carolyn W. Welch (New York : American Books, 1963), p.246.

[142] K. Goodman, "Reading : The Psycholinguistic Guessing Game", pp.260-271.

Text	Miscue
your	the
opened	hoped (corrected)
sounded	sounds
philosophical	1) ph 2) phizo 3) philosoophical
word meanings first	what it means
fortune	1) fort 2) future 3) futshion

The reader's substitution of "the" for "your", even though each word had previously been correctly responded to indicated the use of the same grammatical function. Graphic shape was ignored and since there was no meaning change, correction was unnecessary. Goodman referred to these words as "noun markers" (*the, your, a, his*) and found that the reader's substitutions had little effect on the meaning.

Goodman contended that insistence on precise identification of words may inhibit the reader's search for grammatical information and cause that reader to depend on graphic information.

The substitution of "hoped" for "opened" indicated that the reader was aware of grammar and these words were graphically similar. This miscue was corrected probably on the basis of context. The word "hoped" simply did not make sense.

The substitution of "sounds" for "sounded" was not corrected by the reader because this miscue was syntactically and semantically acceptable. In this miscue the reader had substituted a different inflectional ending.

"He" was substituted for "I" which resulted in a meaning change within the passage, but not a meaning change for the reader so no correction was made. Meaning was also retained in the transformation of the phrase "word meanings first" to "what it means". No correction was made.

Two unknown words were attempted during the oral reading of this passage. These words were "philosophical" and "fortune". This reader used grapho-phonic strategies unsuccessfully on the words. Because he had had no previous experience with these words, he was unable to identify them. Fortunately the meaning of "philosophical" was identified in the text, but the meaning of "fortune" would have remained obscure for this reader.

Goodman used miscue analysis research to illustrate how the reader interacts with his language and thought and experience. Miscue analysis also allows the investigator to understand the integration of reading strategies during reading. Goodman referred to this process as "a psycholinguistic guessing game"[143] but there is more involved in the reading process than "guessing". "Prediction" is the preferred term for this phenomenon during reading.[144]

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[143] K. Goodman, "Reading : A Psycholinguistic Guessing Game", p.263.

[144] K. Goodman, "Psycholinguistic Universals and the Reading Process", Psycholinguistics and Reading, ed. Frank Smith (New York : Holt Rinehart and Winston, 1973), p.25.

Research reviewed in this chapter has been concerned with how the reading process commences in young children. The effect of different reading approaches on reading achievement was reviewed. In Chapter II the assumption that reading is a language-based cognitive process was presented. There is no evidence available as to the effect of a language-based reading approach upon the reading strategies of first grade children.

The language experience approach reported by Stauffer and others has elements of a language-based approach to reading and for this reason was included. There is a need to conduct research into an instructional approach based on language.

Even though Yetta Goodman studied the child's use of language cue systems, how the reader's reading strategies operated was not under investigation. How the reader uses the three language systems is reflected in his reading strategies and there is a need for research in this area.

Yetta Goodman applied Kenneth Goodman's Miscue Analysis Taxonomy to her research into the development of reading in six first-graders. From this research the Goodman and Burke Miscue Analysis Procedure evolved. There was no research evidence available on the use of this procedure to evaluate a reader's reading strategies after the first year at school.

Conclusions

Research into first grade children's reading behaviour and the development of a first grade child's reading strategies has contributed to a better understanding of the unique nature of each child's language processing. Certain conclusions may be drawn from the research reviewed in this chapter.

1. Initial reading instruction affects a child's reading strategies' development.
2. Initial reading instruction which involves the child's oral language, concept development and background is advocated.
3. Initial instruction affects reading achievement, attitude to reading and concept of reading.
4. A teacher's understanding of the reading process is essential.
5. The child needs to know what reading is and why he is doing it.
6. Miscue analysis is a useful research tool and provides insight into the reading process.

CHAPTER IV

OVERVIEW, RESEARCH METHODOLOGY AND DESIGN, INSTRUMENTATION AND THE READING APPROACHES

Introduction

This chapter is designed to give a brief overview of the study and to outline the research methodology adopted. Information concerning the population and method used for the selection of subjects is provided. Instrumentation applied to this study is also discussed in detail. This includes a description of tests used and data collected and recording procedures followed. The statistical procedures employed to analyse data are also described. Finally, descriptive detail is given in relation to the conventional and language-based reading approaches.

Overview

The purpose of this research is to study the effect a language-based reading approach has upon a first grade child's acquisition of effective reading strategies. A language-based reading approach capitalizes on the unique strengths and capacities of the individual child. Effective reading occurs when the child identifies meaning through his knowledge of the three cue systems available to him in print. Effective reading strategies are apparent when the reader is able to make interdependent and simultaneous use of the grapho-phonic, syntactic and semantic cue systems.[1]

The conventional reading approach. The development of reading skills such as word recognition, phonic analysis and synthesis, structural analysis and synthesis and the use of the dictionary are emphasized in this approach. Sight and sound methods focus the child's attention on grapho-phonic information. Basal Readers are used in conjunction with this skills programme. Teachers' Manuals which accompany Basal Readers advocate the sequential development and control of the reading vocabulary. Workbooks associated with Basal Readers reinforce a skills development programme.

The language-based reading approach. This approach begins with the young child reading his own language. Sentences are recorded directly from a language experience. Books which are closely related to the vocabulary and natural language patterns of the five and six year old follow the child's reading of his personal experience stories. From this point on the child is encouraged to read widely and to follow his individual interests.

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[1] Kenneth Goodman and Olive S. Niles, Reading Process and Program (Urbana, Illinois : National Council of English Teachers, 1970), p.15.

For the child to discover the features which are critically distinctive in written language, he must have experience in reading. The more practice a child has in reading, the more opportunity he gets to acquire knowledge of redundancy which must be available if the child is to read effectively. Redundancy exists in reading material at the level of letters, words and meaning. The child's knowledge of redundancy in written material is acquired through experience with written language, i.e. through reading.

Through experience with written material, a child learns that predictions may be made about the sequences of letters and words.

Through experience, the child is also able to make predictions about meaning. As the reader develops, he is able to process progressively larger and larger units of meaning. The result of this is a considerable decrease in the amount of visual information the reader has to process.

Reading miscue analysis. A study of individual children's reading miscues provides the investigator with insight into the young reader's strategy development. Inferences may be made as to the use a child makes of the three cue systems to identify meaning. Differences in reading strategy development as a result of either language or skills emphasis approaches may be noted.

Reading achievement. Teachers and principals are concerned with the traditional concept of reading achievement. How a child is reading in comparison with other first grade children does not, in general, necessarily provide information about how a child learns to read or the progress he has made in gaining control of the process.

Reading achievement tests allow for comparisons to be made in terms of level of reading achievement. Because of the structure of reading achievement tests it is anticipated that they will favour the skills development approach in which word recognition in isolation and phonic analysis and synthesis are emphasized.

Attitude to reading. The approach used in the initial stages of the learning to read process can affect a child's attitude to reading.

The child's attitude to reading is reflected in his liking for, and interest and involvement in reading. Perhaps a reading approach which centres on the child's language, experiences, interests and abilities may produce attitudes which are different from those developed during a skills emphasis reading approach.

The child's concept of reading. Children are often confused about what is required of them in learning to read. It has been shown that an understanding of the reading process facilitates the acquisition of skill in using it.[2] On the other hand, children who are confused about what reading actually is, often make slow progress until confusion is overcome in some way. It is possible that understanding about the reading process is best achieved by the early connection between the spoken and written forms of language. The language-based approach features the development of early spoken and written word association. The conventional approach presents sounds and symbols for the child to make sound/symbol associations and to synthesize sounds into words. There are few spoken and written word associations made in the conventional approach.

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[2] J.F. Reid, "Learning to Think About Reading", Reading :

Perhaps differences in the child's concept of reading develop as a result of the different approaches. The following hypotheses were formulated to ascertain if differences do occur in a first grade child's reading strategy development, reading achievement, attitude to reading and concept of reading as a result of the approach used in the learning to read process.

Hypothesis 1

At the .01 level of significance, in Groups A and B, at the end of grade one, there will be no difference in the three components of reading achievement : word recognition, comprehension and accuracy, as assessed by ACER Primary Survey Tests Levels AA, Word Recognit-

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Today and Tomorrow, ed. A. Melnik and J. Merritt (University of London Press, 1972), p.213.

ion[3] and the Neale Analysis of Reading Ability in Comprehension and Accuracy.[4]

Hypothesis 2

At the .01 level of significance, Groups A and B, at the conclusion of grade one, scores recorded on a five point scale of a questionnaire[5] will reveal no difference in attitude to reading.

Hypothesis 3

At the .01 level of significance, Groups A and B, after one year at school will have no differences in their concept of reading as assessed by points allocated to five different categories of responses to a questionnaire.[6]

Hypothesis 4

At the conclusion of first grade, Groups A and B will have no differences in percentage scores recorded on the "RMI Reader Profile"[7] for -

4A. Sound/Graphic Relationships

4B. Grammatical Function

4C. Grammatical Relationships.

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[3] Australian Council for Educational Research, Primary Reading Survey Tests Levels AA and BB (Hawthorn, Victoria : ACER Pub., 1973).

[4] Marie D. Neale, Neale Analysis of Reading Ability (London : MacMillan Education, 1958).

[5] See Appendix B.

[6] See Chapter IV, pp.162-163.

[7] See Appendix K.

Hypothesis 5

At the conclusion of year one, for Groups A and B, no difference will be observed in scores on the "RMI Reader Profile"[8] for Retelling and Comprehension.

Hypothesis 6

At the .01 level of significance, Groups A and B, after one year at school will have no difference in the effectiveness of reading strategies.[9]

Because descriptive data were projected in the form of graphs to ascertain differences between Groups A and B in Hypotheses four and five, no significance levels were set. However, the RMI procedure allowed the variables from Hypotheses four and five to be brought together in Hypothesis six when differences between Groups A and B in the effectiveness of reading strategies were noted. Figure 24, page 230 illustrated the procedure whereby the effectiveness of the child's reading strategies was assessed from the use the child made of the three language systems. Non-parametric statistics were used to assess differences between Groups A and B in the children's control over the use of effective reading strategies. To do this in Hypothesis six, a significance level of .01 was set.

Research Methodology

For research into the effect language-based and conventional reading approaches have upon the first grade child's reading strategies, two northern suburban primary schools were selected. Availability for first grade classes, co-operation of principals and teachers and socio-economic status of the communities were involved in this selection.

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[8] See Appendix K.

[9] See Appendix K.

At the beginning of the school year one hundred and thirty first grade children were randomly assigned to five teachers in the school where the conventional approach was used. One hundred children in the experimental school were randomly assigned to three teachers. Three first grade teachers in the Control School made their children available for testing. The experimental classes, exposed to the language-based reading approach, will be referred to as Group A and the control classes, learning to read by means of the conventional approach, will be referred to as Group B.

Research design. This research was designed as an experimental study of a treatment variable while other variables were held constant. The experimental variable, the language-based approach to teaching reading, was controlled as much as possible by the investigator's direct management of the first grade reading programme.

"Randomized Control - Group Post Test Only Design"[10] was used. It was necessary to select a design in which a pretest was unnecessary because this research focussed on reading strategy development and the children were not reading at the beginning of the year in which the investigation was conducted. "Readiness" for reading was not considered a significant factor in this research so "readiness" tests were also omitted. Even though children were randomly assigned to classes at the beginning of first grade, the control and experimental classes were in fact pre-existing groups to one of which the treatment conditions were assigned, i.e. to Group A.

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[10] Deopold B. Van Dalen, Understanding Educational Research : An Introduction (3rd edition) (New York : McGraw-Hill Book Company, 1962), pp.287-288.

The population. Random assignments of subjects to treatment and control groups within the one school was impractical for a number of reasons. It was considered necessary to keep treatment and control groups separate to avoid contamination. Because the selected schools were constructed on the open area principle and teachers worked together in planning and organization, contamination would have been unavoidable. Separate schools were therefore selected. However, this approach was acceptable because the composition of the groups was comparable if randomization conditions had been established.[11]

The population of the two schools under investigation was comparable in terms of State Education Department policy, socio-economic status of the community and parent occupation. All schools come under the jurisdiction of the State Education Department and policy on teacher placement, curriculum direction and resource materials supplied was comparable in the two schools. The schools were also comparable in size. The Control Group had a school population of 315 children and the Experimental Group had a school population of 314 children.

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[11] W. James Popham and Kenneth A. Sirotnik, Educational Statistics, Use and Interpretation (2nd edition) (New York : Harper and Row Publishers, 1967), pp.206-207.

Both schools were situated in a State Housing Commission Centre where families lived in rental State Housing Commission standard homes, flats, cottage flats, town houses or duplex type living accommodation. Families could purchase or rent these dwellings at a relatively low cost. Low cost rental is adjustable depending on the income of the tenant. With the Government-assisted buying and rental plan for these areas, a lower income bracket of the population constituted the residents.

Parent occupation in these two areas was also comparable. These first grade children in both communities were, in terms of socio-economic status, classified as being from families in the lower and lower middle class bracket. Categories were established to which parents of the children from each school were assigned. These categories, adapted from "Allingham's Categories",[12] were 'White Collar Workers', 'Blue Collar Workers' and 'Pensioners' and 'Unemployed'. In the Experimental Group A parent occupations in Table 3 show that 92 percent of the parents of the 315 children in the school were 'Blue Collar Workers' and 'Pensioners'. The Control Group B had 94.2 percent in the 'Blue Collar Workers', 'Pensioners' and 'Unemployed' categories. The 'White Collar Workers' constituted 7.6 percent of the parents' occupations in the Experimental Group A and 5.7 percent of the Control Group B.

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[12] A.F. Davies and S. Encel, Australian Society, A Sociological Introduction (2nd edition) (Melbourne : Cheshire, 1970), p.175.

Table 3

Parent Occupations in the Two
Northern Suburban Districts

Parent Occupation	School Population of the Experimental Group	School Population of the Control Group
'White Collar' Workers	%	%
1. Professional and semi-professional		
2. Administrative, proprietary, marginal		
3. Clerical		
TOTAL	24 = 7.6%	18 = 5.7%
'Blue Collar' Workers		
4. Skilled and unskilled workers		
5. Service		
TOTAL	235)) 92%	243)) 94.2%
6. Pensioners	55)	46))
7. Unemployed		8)
TOTAL	314	315

These figures established comparability between the groups as far as parent occupation was concerned and also established that a very high percentage of the parents worked in middle to low status occupations. Low rental houses and low status parent occupations established that the Experimental and Control Group Schools were situated in communities classified as lower middle and low socio-economic status groups and were comparable.

Analysis of covariance.[13] I.Q. as the covariate was used to overcome dangers inherent in dealing with pre-existing groups. A further control was that comparability in terms of the school population's socio-economic status was built into the design by the selection of similar communities.

Reading achievement, attitude to reading and the child's concept of reading were the dependent or criterion variables subject to testing. The independent variables were the language-based and conventional reading approaches. Because I.Q. is a significant factor in the learning to read process, this was used as the covariate so that the criterion variables in the Experimental and Control Groups could be studied after adjustment for differences in I.Q. which existed in the Groups.

The Subjects

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[13] Popham and Sirotnik, pp.204-213.

Table 4

I.Q. Scores as Computed from Peabody Picture Vocabulary Test Group A : Language-Based Reading Approach

Subjects	C.A.		M.A.		I.Q.
	Yrs	Mths	Yrs	Mths	
1	6	10	9	5	124
2	5	7	6	2	101
3	6	0	6	6	101
4	6	0	5	5	93
5	6	0	5	5	93
6	6	0	6	10	109
7	6	6	6	8	96
8	6	3	6	10	109
9	6	10	8	4	116
10	5	11	6	4	103
11	6	5	5	10	97
12	5	10	7	5	115
13	6	9	8	5	114
14	6	4	6	10	109
15	6	0	7	3	113
16	6	6	6	10	98
17	6	5	5	6	83
18	5	6	5	6	93
19	6	6	7	1	100
20	6	11	8	6	116
n = 20	X = 6 yrs 3 mths		X = 6 yrs 4 mths		X = 104.15

Table 5

I.Q. Scores as Computed from Peabody Picture Vocabulary Test Group B : Conventional Reading Approach

Subjects	C.A.		M.A.		I.Q.
	Yrs	Mths	Yrs	Mths	
1	6	10	6	4	93
2	6	0	5	8	95
3	6	6	7	3	102
4	6	6	6	6	95
5	6	6	5	10	87
6	6	10	8	9	118
7	6	3	5	11	89
8	6	6	5	6	83
9	6	7	8	2	112
10	6	8	7	0	100
11	6	7	5	8	85
12	6	3	6	2	91
13	6	1	5	3	89
14	6	6	5	3	87
15	6	7	5	4	79
16	6	3	5	11	99
17	6	1	5	3	89
18	6	10	5	11	89
19	6	0	5	10	97
20	6	10	6	6	95
n = 20	X = 6 yrs 5 mths		X = 6 yrs 2 mths		X = 93.7

Table 6

The Mean, Standard Deviation and T Test for I.Q. Scores

	Mean	Standard Deviation	T Test
Experimental Group A	104.15	14.53	5.74
Control Group B	93.7	16.57	

For 38 df at the .01 level of significance, the table gives a result of 2.429. There is therefore a significant difference between the groups as far as I.Q. is concerned.

An Analysis of Covariance with I.Q. as the covariate was used to control for this difference between the means as far as I.Q. was concerned.

From the three first grade classes in each school twenty children were selected by application of the Table of Random Number.[14] Group A consisted of thirteen boys and seven girls and Group B had ten boys and ten girls. The Peabody Picture Vocabulary Test[15] was administered to each child and I.Q. score and mental age was tabulated. Tables 4 and 5 show the Chronological Age, Mental Age and Intelligence Quotient for each child in Groups A and B. The mean C.A. for Groups A and B was six years three months and six years five months respectively. The mean M.A. for Groups A and B were six years two months and six years four months respectively. The mean I.Q. scores for Groups A and B were 104.15 and 93.7 respectively.[16] Because there were 10.45 I.Q. points difference between the mean I.Q. scores, a T Test was applied to the data.[17]

The teacher variable. Control of the teacher variable was difficult, but handled in a number of ways. Teachers from both the Experimental and Control Groups had completed reading courses with the investigator. These teachers were also matched as closely as possible, in terms of age, sex and years of experience. The three teachers in the Control Group had used the conventional approach to teaching reading with first grade children in the previous year. These teachers worked together in planning the reading programme. [18] Reading was supervised in the Control Group by the Principal.

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[14] Popham and Sirotnik, pp.44-45.

[15] Lloyd M. Dunn, Peabody Picture Vocabulary Test (Minnesota : American Guidance Service, Inc., 1959).

[16] See Tables 4 and 5.

[17] See Table 6.

One of the teachers in the Experimental Group had had no previous experience teaching first grade children. None of these teachers had used a language-based approach before. For this reason the investigator supervised reading in the Experimental Groups throughout the year. Teachers planned reading programmes in consultation with the investigator.[19]

The school environment. The teachers in both Control and Experimental Groups worked in adjacent open areas with similar organizational patterns. One difference was that the investigator assisted in the implementation of the language-based approach to reading. This was done by direct involvement by teachers in reading courses during post-service training, by in-service attendance, by discussion and during planning sessions. The Experimental Group was visited each week when assistance was given in practical aspects of the reading approach. As well as demonstration lessons being given by the investigator, suggestions were made for planning direct language experiences which formed the basis of reading material in the beginning stages of reading. Later, assistance was given in the selection and acquisition of reading material which was considered at a suitable level, within the interests of the children and more closely related to young children's language patterns. The school librarian also assisted in the selection of suitable reading material for the first grade children. These materials were freely accessible during the year.

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[18] See Appendix C.

[19] See Appendix D.

The home environment. During second term teachers in the Experimental Group reported that some children were sounding out unknown words even though this [illegible]que was not advocated in this approach. It was discov[illegible] that parents who had learned to read by means of a skills development approach insisted that children sound out unknown words. Parents were also concerned that children were not reading the traditional Basal Readers. A parent education programme was introduced to overcome these problems.

Similar parent meetings were conducted by teachers in the Control Group. This additional control of the home environment was not initially planned for in this investigation. Interest among parents in the Experimental and Control Groups was high. Parent involvement in the learning to read process was not however followed up in this present investigation.

Instrumentation

Reading miscue analysis. The oral reading of twenty children from Group A, the Experimental Group, and twenty children from Group B, the Control Group, was audio-recorded.

Procedures for diagnosis and evaluation set down in the Reading Miscue Inventory[20] were applied to reading miscues made by individual children. This technique was used to test Hypotheses 4, 5 and 6.

To test these hypotheses the RMI procedure was followed. A selection was made of stories suitable for first grade children to read orally. These stories were complete in themselves and contained concepts and situations which each child could comprehend. Twenty stories were first selected and tested with a number of first grade children who were not in the sample. The number of stories was reduced to nine[21] of varying length and difficulty. These selections were made so that children at different ability levels could read the stories in approximately ten minutes. Goodman and Burke in the Reading Miscue Inventory Manual suggested that fifteen to twenty minutes of oral reading was advisable. This length of time was considered too long for the first grade children so the period of oral reading was reduced accordingly.

After the selection of suitable stories, techniques for unaided and aided retelling of each story were planned. During "Unaided Retelling" forty points were allocated to specific aspects of "Character Development" and sixty points to "Events" which occurred during the retelling. After each child retold the story, questions were presented in an

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[20] Goodman and Burke.

[21] See Appendix E.

"Aided Retelling". This score was included in the Character Development and Events scores.[22]

The sound-proof withdrawal room within the open areas of the first grade classrooms in each school was used to audio-record each child's oral reading. Children were told they would be required to retell the story. This procedure was used for each child in Groups A and B and set out with each story.

Twenty minutes were spent with each first grade child while he read orally and completed the "Unaided" and "Aided Retelling" of the story. During the oral reading, duplicates of the stories were marked and miscues were recorded in the following way -

The marking system.[23] Five categories were used in the marking system. These categories encompassed categories which were substitutions, omissions, insertions, reversals or repetitions.

Substitution. This miscue occurred when the reader substituted a word for the text word. It was recorded by writing in the reader's substitute word above the text word.

furry
e.g. They were yellow and fluffy and very cute
fathers
Their feathers were as soft as fur.[24]

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[22] See Appendix E.

[23] Goodman and Burke, pp.28-32.

[24] All examples were taken from Ira E. Haron, "The Little Ducks' Swimming Tub", Study Book Level 4 (Glenview,

Omission. If a word was omitted it was recorded on the marking sheet by circling the word.

e.g. One day the little ducks asked if they could go
(swimming) in the pond.

Insertion. For this miscue an insertion mark was inserted at the point where the insertion occurred.

e.g. They were yellow and $\overset{\text{very}}{\wedge}$ fluffy, and very cute.

Reversals. These miscues were recorded by the transpositional symbol being inserted where letters, words, phrases or clauses were reversed.

e.g. "It's much too cold to go out," Debby said.

Repetition. Regression during reading was necessary for a number of reasons. Five different repetition miscues were recorded in the following way -

1. Correcting a miscue - ⓒ

   ⓒ furry
   They were yellow and fluffy, and very cute.

2. Abandoning a correct form - (ac)

   (ac) fathers
   Their feathers were as soft as fur.

3. Unsuccessfully attempting to correct - (uc)

   (uc) cut
   cut-e
   They were yellow and fluffy, and very cute

4. Anticipating difficulty with a subsequent word

Illinois : Scott, Foresman and Company, 1971), pp.12-13.

Debby, you get the babies ⓐ into their swim suits,
and I'll get the tub ready.

The reader anticipated problems with identifying suits and repeated "into their swim".

Additional markings. Non-word and partial word substitutions were recorded as follows -

e.g. Partial word substitutions

One day the little ducks asked if they could go
swim -
swimming in the pond.

e.g. Non-word substitutions - $

$ suts
Debby, you get the babies into their swim suits,
and I'll get the tub ready.

Coding miscues. It was necessary to play the audiotapes a number of times to ensure that all miscues for each child were recorded as above. This information was then recorded on each child's "RMI Coding Sheet".[25] Dialect and intonation was not recorded because dialect was not a factor in the population and intonation is more significant in the mature reader.

After each miscue was recorded on the "RMI Coding Sheet"[26] seven of the nine questions[27] formulated for coding miscues were asked of each miscue. Questions one and two were related to dialect and intonation and were deleted.

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[25] Goodman and Burke, pp.40-41. See Appendix F.

[26] See Appendix F.

[27] Goodman and Burke, pp.49-50.

The following procedure was adopted for questions three and four.[28] Each question was recorded as Y, P or N and noted in the "RMI Coding Sheet" by a check mark in the appropriate column.

Questions five, six, seven, eight and nine[29] were related to Grammatical Function and Correction, Grammatical and Semantic Acceptability and Meaning Change. Once again Y, P or N was recorded by a check mark in the appropriate column for Grammatical Function. Y, P or N was recorded in columns six, seven, eight and nine.

Percentage scores were recorded from Graphic Similarity, Sound Similarity and Grammatical Function. Percentages were computed by dividing the number of miscues in each of the Y, P and N columns by the total number of miscues and multiplying by one hundred. These percentages were then transferred to the "RMI Reader Profile".[30]

Responses for Correction, Grammatical and Semantic Acceptability and Meaning Change were related to the Patterns of Grammatical Relationships and Patterns of Comprehension.[31] Patterns of Grammatical Relationships were related to questions six, seven and eight whereas Patterns of Comprehension were related to questions six, eight and nine. These patterns were then recorded on the Coding Sheets, computed into percentages and transferred to the

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[28] Goodman and Burke, p.55. See Appendix G.

[29] See Appendix G. [30] See Appendix H. [31] See Table 7.

Table 7

Reading Miscue Inventory Patterns of Comprehension and Grammatical Relationships[32]

PATTERNS OF COMPREHENSION

NO LOSS		PARTIAL LOSS		LOSS
Columns 6+8+9	Columns 6+8+9	Columns 6+8+9	Columns 6+8+9	Columns 6+8+9
Y+Y+N	Y+P+N	N+P+P	P+N+P	N+N+P
Y+P+P	Y+N+N	N+Y+P	P+P+P	N+N+Y
Y+P+Y	N+N+N	P+Y+N	P+Y+P	N+P+Y
Y+N+Y	Y+Y+P	P+Y+Y	P+P+N	P+N+Y
N+Y+N	Y+N+P	N+Y+Y	P+N+N	P+P+Y
N+P+N	Y+Y+Y			

PATTERNS OF GRAMMATICAL RELATIONSHIPS

STRENGTH Columns 6+7+8	PARTIAL STRENGTH Columns 6+7+8	WEAKNESS Columns 6+7+8	OVERCORRECTION Columns 6+7+8
Y+N+N	N+Y+N	N+N+N	Y+Y+Y
Y+P+N	N+Y+P	N+P+N	P+Y+Y
Y+Y+N	P+Y+N	N+P+P	
Y+P+P	P+Y+P	P+N+N	
Y+Y+P		P+P+N	
N+Y+Y		P+P+P	

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[32] Goodman and Burke, p.81.

"RMI Reader Profile".[33] Percentages were recorded for Grammatical Relationships under Grammatical Function and Relationships.

The Comprehension Pattern of the "RMI Reader Profile" is a bar graph which shows relationships among the percentages of "No Loss", "Partial Loss" and "Loss".[34] These percentages were recorded on the "RMI Reader Profile" for each child and translated into one of four categories listed for the Reader's Use of Reading Strategies.

In Table 8[35] the range of percentages or the Comprehension Pattern and the retelling score necessary to associate the reader with the effectiveness of his reading strategies may be seen.

Table 8

The Reader's Use of Reading Strategies

	COMPREHENSION PATTERN			RETELLING SCORE RANGE
	No Loss	Some Loss	Loss	Points
Ineffective	0 - 14%		0 - 100%	0 - 25
Some Effective	15 - 45%	0 - 85%	20 - 70%	20 - 60
Moderately Effective	40 - 79%	0 - 60%	0 - 40%	40 - 80
Highly Effective	60 - 100%	0 - 40%	0 - 20%	50 - 100

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[33] Goodman and Burke, p.81. [34] See Appendix I. [35] See Appendix I.

Graphs were drawn to study differences in grapho-phonic percentages between the Groups A and B. Graphs were also drawn from percentage scores recorded on the "RMI Reader Profile" to study differences in Grammatical Function and Grammatical Relationship. The number of children who made "Highly Effective", "Moderately Effective", "Some Effective" or "Ineffective" use of reading strategies was recorded for Groups A and B. Chi-square was the statistical device used to test for differences between the groups.

Reading Achievement

At the conclusion of first grade, two tests were administered to the twenty children in Group A and twenty children in Group B. Hypothesis 1 outlined on p.140 was tested at the .01 level of significance.

The ACER Primary Survey Test Level AA, Word Recognition Form S was administered as a group test to the twenty children in Groups A and B. Scores were recorded out of a total of sixteen. Children were asked to look at a picture and choose from three possibilities the word closest to the meaning of the picture. The children were instructed to circle the word "which tells us best about the picture". This test showed norms for Australian children. In a November norms testing 11 percent of pupils on Form S scored full marks.

Difficulty was experienced in finding a test on which meaning was the objective. The Neale Analysis of Reading

Ability required each child to read from text stories of increasing difficulty. Errors were recorded as mispronunciation, substitution, addition, omission or reversal. The number of errors in the oral reading was subtracted from a total of sixteen. Rate of reading was recorded and comprehension was scored by the allocation of points for responses to oral comprehension questions. Reading ages for reading accuracy and comprehension were then read from the appropriate tables.[36] The raw scores for comprehension and accuracy became those of the criterion variable scores in the Analysis of Covariance.

Attitude to Reading

Each child was interviewed and a questionnaire[37] was administered. Responses were recorded on a five point scale to test Hypothesis 2 on p.141.

Scores were recorded out of a total of twenty-five and these scores were submitted to the data for an analysis of covariance to be computed.

Concept of Reading

Hypothesis 3 on p.141 was tested when the questionnaire was administered in the interview situation.

The test. Ellis and Johns in an unpublished article entitled "Reading, Children Tell It Like It Is", formulated three questions to investigate the child's concept of reading and to focus on the students' view of the reading process. These questions were as follows -

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[36] Neale, pp.37-39.

[37] See Appendix B.

a. What is reading?

b. What do you do when you read?

c. If someone didn't know how to read, what would you tell him that he would need to learn?

Responses children gave to these questions were allocated to one of five categories. Scores were also given for responses. No score was recorded for no response or "I don't know".

Category 1 : Vague, irrelevant or circular responses such as "reading is reading" or "reading from a reading book". Points = 1.

Category 2 : Classroom procedure. "You read around the circle" and "you read to the teacher". "You take out your marker and find the place". Points = 2.

Category 3 : Word recognition (decoding). "Reading is sounding out words". "Reading is knowing words". Points = 3.

Category 4 : Meaning and word recognition. This category included responses which define reading as a process of saying the words and understanding the story.[38] Points = 4.

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[38] Diann Ellis and Jerry Johns, "Reading, Children Tell It Like It Is" (Northern Illinois University, 1976) (mimeographed).

Category 5 : Meaning or understanding. "It's when you read a story and know what it's about". Points = 5.

Responses were recorded within these five categories for each child in Groups A and B. A score was allocated to responses and recorded out of a total of twenty-five. This score became the third criterion variable in the Analysis of Covariance with I.Q. as the covariate.

The Approaches

The conventional reading approach. The conventional reading approach has been used in Western Australian schools for more than forty years. This approach emphasized a reading skills development programme and the use of one or more basal readers. Basal Reader Programmes and the State Education Department support a formal readiness for reading programmes during term one of the first year at school.

The Primary English Syllabus[39] referred to the work of W.S. Gray, The Teaching of Reading and Writing, as a basis for teaching reading skills. Gray outlined five basic methods a child should have to attack unfamiliar words. The five methods used are -

1. Contextual clues.
2. Visual clues.
3. Structural analysis.

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[39] Curriculum Branch, Education Department of Western Australia, Primary English Syllabus, Reading and Literature, Teachers' Notes (Western Australia, William C. Brown, Government Printer, 1967).

4. Phonic analysis.
5. Dictionary skills.[40]

These skills are developed in a sequential way during word analysis lessons.

The Happy Venture Readers,[41] The Janet and John Series,[42] The Young Australian Readers,[43] The Endeavour Readers,[44] and The Beacon Readers[45] are the Basal Series most commonly used in Western Australian schools. These readers are supplied by the State Education Department. Basal Reading Programmes advocate skills developed as set down by Gray and sequential and controlled vocabulary development. The three group organizational system is also advocated by the Basal Reader Programme. The three group system of lower, middle and upper reading ability was followed in most classrooms. The school in which the Control Group operated followed this approach to teaching reading.

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[40] Curriculum Branch, Education Department of Western Australia, p.24.

[41] Fred Schonell, Happy Venture (Edinburgh : Oliver and Boyd, 1954).

[42] Mabel O'Donnell and Rona Munro, The Janet and John Books (Digswell Place : James Nisbet and Co. Ltd, 1949).

[43] John A. McInnes, Young Australian Language Development Scheme (Sydney, Australia : Nelson, 1966).

[44] Endeavour Reading Programme (Melbourne : Jacaranda Press, 1967).

[45] M.E. Sullivan and P.M. Cox, The Beacon Readers (London : Ginn and Co. Ltd, 1928, revised 1952).

Each month teachers planned a reading programme[46] which was submitted to the principal for checking.

Readiness. All children worked through a readiness programme. During this time, commencing on the first week, the words from the Janet and John Series, "Here We Go", were introduced at the rate of two each week.

After eight weeks the children took home cards on which were printed simple phrases such as -

Come, Janet
Come, John
Come, boats
Come, aeroplane
Come, kitten.

Material on these cards increased in difficulty until by the twelfth week a card had phrases such as -

Janet can run and jump
John can go and play
The horse can run up and down
The kitten can run and play
John can ride and ride.

Skills development. During the first week of first term, Letterman Stories[47] were introduced at the rate of two each week. By the end of term one, all single letter sounds had been introduced. During term two, two and three letter blends were taught. By term three, the children had been taught double sounds or digraphs. Children were encouraged to sound unknown and unfamiliar words while reading. Activities, exercises and games were planned to reinforce learning whole words and to make sound/symbol associations.

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[46] See Appendix C.

[47] Education Department of Western Australia, Letterman Stories (Government Printing Office, revised 1973).

During the twelfth week of term the children were tested[48] by the principal and if considered "ready" for reading, progressed to reading Basal Reading material.

Reading material. During May and at the beginning of second term, children exposed to the conventional approach were introduced to the beginning readers in the Janet and John[49] and Kathy and Mark Series.[50] Later, The Young Australian Readers[51] were also introduced.

The language-based reading approach. No formal readiness programme was followed in this approach. At the beginning of first term the language-based reading approach was introduced into the experimental classes. Language experience lessons were planned by the three teachers in consultation with the investigator. Each teacher prepared a reading programme in which different language experiences were outlined and related activities planned. The following format was used in the initial stages of reading.

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[48] Education Department of Western Australia, Readiness For Reading Test (Western Australia, W.C. Brown, Government Printer, 1952).

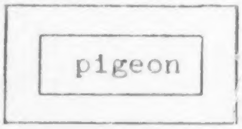
[49] O'Donnell and Munro (1949).

[50] Mabel O'Donnell and Rona Munro, Illust. by Beatrice Darwin, The Kathy and Mark Basic Reading (Digswell Place : James Nisbet and Co., 1970).

[51] McInness (1966).

The class story.[52] A language experience was planned in such a way to stimulate oral language. Children were encouraged to talk, ask questions and make observations during the experience. After the experience children were brought together for discussion. Purposeful questions were planned and asked so that meaningful sentences would be generated. The children's sentences were then recorded on the blackboard or on experience charts by the teacher. The child was able to observe while his language was recorded. After writing three or four sentences, the teacher read the story. The class and individual children also read the story.

The ability to recognize words and to make educated guesses about words was developed within the context of the story. Words were discussed and an isolator was used to assist the child to recognize words, but to recognize them in context. The children's attention was also directed to initial sounds and the surrounding context to recognize unknown words.



This language experience story was transferred to cards to enable children to manipulate them. New sentences were made and word games were played. Class stories were printed and became the first page in the child's individual book related to that experience.

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[52] See Appendix J.

Group stories. These were planned and recorded in the same way. Group stories were recorded in books and were included in the class library.

Individual stories. The child drew a picture about some personal experience. The teacher recorded his personal language experience story in a small book. This book was used for reading to the teacher and to parents. The teacher was able to test words recognized by the child by having him underline words he knew. These words were then recorded on cards and became the child's personal "word bank".

Reading material. Initially children read teacher printed or typed experience stories.[53] These may be class, group or individual stories, news reports or special occasion books. Children then progressed to reading books which contained natural language patterns for young children. Books were selected from *Breakthrough to Literacy*,[54] *Reading Rigby*,[55] *Reading Unlimited*,[56] *Linkup*[57] and a variety of library books.

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[53] See Appendix J.

[54] David MacKay, Brian Thompson and Pamela Schaub, *Breakthrough to Literacy* (London : Longman Group Ltd 1970).

[55] Gregory Blaxall, *Reading Rigby, An Australian Reading Program* (Adelaide : Rigby Ltd, 1975).

[56]

Introducing books. The teacher had sets of four to six books so that the same book may be introduced to a small group of children. This group approach was necessitated by the large number of children (30+) in each first grade class. The story was first read by the teacher while children followed. Teachers were encouraged not to present new words at the beginning of the lesson, but to allow children to first experience these words in context.

Children were encouraged to have a wide experience with books. The teacher read often to the children, as often as three times each day. Each child was encouraged to read widely books related to his interests. He was also encouraged to talk about his reading experiences as this approach helped him to establish and reinforce meaning, the main objective in reading.

Kenneth Goodman (ed.), *Reading Unlimited* (Glenview, Illinois : Scott Foresman and Company, 1976).

[57] Jessie Reid, John Low and Ken Turnbull, *Linkup* (Edinburgh : Holmes McDougall Ltd, 1972).

CHAPTER V

ANALYSIS AND EVALUATION OF FINDINGS

Introduction

Findings on the analysis of scores for reading achievement, attitude to and concept of reading are presented in this chapter. Reading Miscue Analysis[1] findings are also reported. The six hypotheses set down in Chapter IV are tested to determine if differences exist between Groups A and B.

The ACER Primary Survey Tests Levels AA, Word Recognition[2] and the Neale Analysis of Reading Ability[3] were administered and results recorded for each child in Groups A and B. Attitude to reading was assessed by the administration of a questionnaire[4] and scores from a five point scale were recorded. Each child's concept of reading was assessed by means of points allocated to five response categories in answer to the questions -

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[1] Yetta M. Goodman and Carolyn L. Burke, Reading Miscue Inventory Manual : Procedure for Diagnosis and Education (New York : Macmillan Publishing Co., 1973).

[2] Australian Council for Educational Research, Primary Survey Tests Levels AA and BB (Hawthorn, Victoria : ACER Pub., 1973).

[3] Marie D. Neale, Neale Analysis of Reading Ability (London : Macmillan Education, 1958).

a. What is reading?
b. What do you do when you read?
c. If someone didn't know how to read, what would you tell him that he needed to learn?[5]

Statistical analyses were conducted on data recorded for reading achievement, attitude to reading and concept of reading. Results recorded for the three components of reading achievement, i.e. word recognition, accuracy and comprehension, were subjected to a multivariate analysis of covariance to test hypothesis one.

Attitude to and concept of reading data were subjected to a univariate analysis of covariance to test hypotheses two and three and .01 was the level of significance set for this purpose.

For the purpose of miscue analysis, audiotapes were prepared from the oral readings[6] of random samples of twenty first-grade children from each of the two northern suburban schools where beginning reading was under investigation. The twenty children exposed to the language-based reading approach were designated Group A and the twenty exposed to a conventional reading approach constituted Group B. Miscues were recorded on the "RMI Coding Sheet"[7] and analyzed in terms of Sound and Graphic Similarity, Grammatical Function, Correction, Grammatical and Semantic Acceptability, Meaning Change, Comprehension and Grammatical Relationships. This information was then transposed, in the form of percentages, to the "RMI Reader Profile".[8] Information recorded on the "RMI" was used to determine if differences exist between the groups in the use children made of the three language cue systems when reading. If differences do exist, these may be directly attributable to the reading approach to which these children were exposed.

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[4] See Appendix B.

[5] Diann Ellis and Jerry Johns, "Reading, Children Tell It Like It Is" (Northern Illinois University, 1976) (mimeographed), p.1.

[6] See Appendix E and Table 14.

Because language was the significant factor in this section of the research, I.Q. was not used as the control factor in hypotheses four, five and six. Even though in testing hypothesis six, the groups were evaluated for their use of reading strategies, more concern was expressed for the reader's use of the three language systems.

Conclusions are drawn from these findings, and in Chapter VI recommendations will be made for further research as well as implications for beginning reading instruction.

READING ACHIEVEMENT, ATTITUDE TO AND CONCEPT OF READING

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[7] See Appendix F.

[8] See Appendix K.

A multivariate analysis of variance[9] was computed on scores[10] from the three tests of reading achievement and scores[11] from attitude to and concept of reading were subjected to a univariate analysis of covariance.

Table 9

Analysis of Covariance : Relevant Variables

	INDEPENDENT VARIABLES		COVARIATE
Criterion Variables	Language-based reading approach Group A	Conventional reading approach Group B	I.Q.
Reading Achievement			
a. Word Recognition	ACER word recognition scores	ACER word recognition scores	Peabody Picture Vocabulary Scores
b. Accuracy c. Comprehension	Neale Test of Reading Ability Scores	Neale Test of Reading Ability Scores	
Attitude to Reading	Questionnaire scores	Questionnaire scores	
Concept of Reading	Questionnaire scores	Questionnaire scores	

The above Table 9 indicates the three components of reading achievement, attitude to and concept of reading as the dependent variables with language-based and conventional reading approaches as the independent variable. I.Q. was used as the covariate.[12]

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[9] W. James Popham and Kenneth A. Sirotnik, Educational Statistics, Use and Interpretation (2nd ed.) (New York : Harper and Row Publishing Co., 1967), pp.250-251.

[10] See Appendix L. [11] See Appendix L.

Reading Achievement

Three measures obtained for word recognition, comprehension and accuracy were the components of reading achievement studied in this research.

Hypothesis 1. At the .01 level of significance, in Groups A and B, at the end of grade one, there will be no difference in the three components of reading achievement : word recognition, comprehension and accuracy, as assessed by ACER Primary Survey Tests Levels AA, Word Recognition[13] and the Neale Analysis of Reading Ability, in Comprehension and Accuracy.[14]

Findings. Scores for the three components of reading achievement, word recognition, comprehension and accuracy were subjected to a multivariate analysis of variance (Manova). On this test the F value was found to be significant ($F = 4.1$, d.f. 3/37, $P < .01$, sig.). Having established that the multivariate F value was signifcant, the

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[12] Chapter IV, p.150.

[13] Australian Council for Educational Research, Primary Reading Survey Tests Levels AA and BB (Hawthorne, Vic. : ACER, 1973).

[14] Marie D. Neale, Neale Analysis of Reading Ability (London : Macmillan Education, 1958).

Roy Bargman Stepdown F Tests were applied to the data.

The F value for word recognition is highly significant ($F = 8.99$, d.f. 1/37, $P < .01$, sig.). There is a significant difference between Groups A and B on the word recognition component of reading achievement. The next question asked in relation to the data for the Stepdown F Tests was if there were significant differences between the groups in comprehension and accuracy when the effects of word recognition were taken into consideration. The influence of word recognition was removed and a study was made to ascertain if differences between Groups A and B were still apparent. These results show ($F = 1.15$, d.f. 1/37, $P >$ .01, N.S.) for comprehension and for accuracy it is seen that ($F = 1.87$, d.f. 1/37, $P > .01$, N.S.). The conclusion drawn was that the significant difference between the two groups was accounted for almost exclusively by their differences in word recognition.

A study of the means on word recognition indicated a difference of 4.7 in favour of Group A. The differences of 3.4 between the means for comprehension and 3.6 between the means for accuracy show a positive tendency in the direction of significance. With the removal of the influence of word recognition, the differences between the groups in comprehension and accuracy were not significant. These results are presented in Table 10.

The findings indicate that there was a significant difference between Groups A and B and word recognition.

Table 10

Means and Standard Deviations for Three Variables and Two Reading Approaches

		Mean	Std. Dev.
Variable : Word Recognition			
Group A		13.65	1.63
Group B		8.95	4.79
	diff.	4.7	
Variable : Comprehension			
Group A		9.8	4
Group B		6.4	3.16
	diff.	3.4	
Variable : Accuracy			
Group A		20.5	13.14
Group B		16.9	7.02
	diff.	3.6	

This difference favoured Group A, the experimental group. Differences between the groups in the component of reading achievement called word recognition may be accounted for in the reading approach to which these children were exposed. Children exposed to the language-based reading approach had experience with a more extensive reading vocabulary.[15] Children who learned by means of basal readers were taught words, by sight, from the early reading books. Vocabulary was controlled for Group B children whereas Group A children had experienced many words which had initially been used in oral language and related to previously developed concepts.

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[15] See Appendix A.

Children in the experimental group learned to read personal oral language in the initial stages of grade one. This technique developed a reading vocabulary more relevant to the concept and language development of each child. Group A, the experimental group, had a wide experience with words in reading material. Group B children read basal readers and associated supplementary readers. These factors contributed to the finding of significant differences between the groups in word recognition.

The results discussed in this study were supported by the research of Stauffer[16] which indicated that children in the experimental group (language arts) scored significantly higher than children in the control group on "Word Reading" and "Paragraph Meaning". "Word Recognition" was also significantly higher in the experimental group. Hahn[17] also reported significantly higher scores for the "Word Reading Test" of the Standford Achievement Test for the ITA and language arts approaches than the basic reader approaches.

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[16] Russell G. Stauffer, "The Effectiveness of Language Arts and Basic Reader Approaches to First Grade Reading Instruction", The Reading Teacher (October 1966), pp.18-24.

[17] Harry T. Hahn, "Three Approaches to Beginning Reading Instruction - ITA, Language Arts and Basic Readers", The Reading Teacher, Vol.19, No.8 (May 1966), pp.590-594.

The language-based reading approach benefited children's word recognition ability so that the null hypothesis on the word recognition component of reading achievement is untenable. There was a significant difference between the groups in word recognition. No significant difference was found between the groups in the comprehension and accuracy components of reading achievement.

Attitude to Reading

A univariate analysis of covariance was computed for scores on the reading attitude questionnaire.[18] I.Q. was used as the covariate. F values from the analysis of covariance were used to test the following hypothesis.

Hypothesis 2. At the .01 level of significance Groups A and B, at the conclusion of grade one, scores recorded on a five point scale of a questionnaire will reveal no difference in attitude to reading.

Findings. The following Table 11 shows mean and standard deviations for relevant variables, attitude to reading and I.Q.

Table 11

Means and Standard Deviations for Relevant Variables

Variable : Attitude to Reading	Mean	Std. Dev.
Group A	19.55	2.94

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[18] See Appendix B.

	Mean	Std. Dev.
Group B	19.30	2.55
Variable : I.Q.		
Group A	104.15	10.21
Group B	93.7	9.35

Statistical analysis produced the following result for an analysis of covariance with I.Q. as the covariate. These results may be seen in Table 12.

Table 12

Analysis of Covariance : Attitude to Reading by Reading Approach with I.Q. as the Covariate

Source of Variance	Sum of Squares	D.F.	Mean Sq.	F	Sig. of F
Within Cells	285.74	37	7.72		
Approach	3.08	1	3.1	.4	.53 (N.S.)

These results indicate that there is no significant difference between Groups A and B as indicated by scores on the attitude to reading questionnaire, ($F = .4$, d.f. 1/37, $P < .01$, N.S.). The hypothesis is found to be supported.

These results are identical with those reported by Stauffer[19] and Hahn[20] who found no significant differences in attitude to reading between children exposed to either language arts or basal reader approaches.

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[19] Stauffer, p.22.

[20] Hahn, p.592.

Concept of Reading

Scores for each child's concept of reading were recorded[21] and results were analyzed by means of a univariate analysis of covariance with I.Q. as the covariate. The following hypothesis was tested.

Hypothesis 3. At the .01 level of significance, Groups A and B, after one year at school, will have no difference in their concept of reading as assessed by points allocated to five different categories of responses to a questionnaire.[22]

Findings. The mean and standard deviation for statistical analysis may be seen in Table 13.

Table 13

Means and Standard Deviations for Relevant Variables

Variable : Concept of Reading	Mean	Std.Dev.
Group A	7.60	2.58
Group B	5.35	1.98
Variable : I.Q.		
Group A	104.15	10.21
Group B	93.7	9.37

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[21] See Appendix L.

[22] Chapter IV, pp.163-164.

An analysis of covariance with I.Q. as the covariate gave the following results, ($F = 4.01$, d.f. 1/37, $P < .01$, N.S.).

There is no significant difference between Groups A and B and thus hypothesis three is supported. That is, there is no difference between Groups A and B with respect to the children's concept of reading.

Even though Downing[23] suggested that the language experience approach to reading which matches speech to print is more meaningful to the beginning reader, it seems that the language-based and conventional approaches developed in children a similar concept of reading.

One of the problems associated with the assessment of concept of reading is the fact that the research tool used [24] is still in its developmental stages. Perhaps a testing procedure which directs the child's attention to the concept of a word may have revealed more significant differences between the groups in concept of reading.

During the interview situations, it was noted that children in the experimental group made comments in relation to the reading process which indicated a better understanding of reading as the identification of meaning. These comments were difficult to assess and did not become apparent in the final analysis.

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[23] John Downing, "How Children Think About Reading", The Reading Teacher, Vol.23 (December 1969), pp.217-230.

[24] Diann Ellis and Jerry Johns, "Reading, Children Tell It Like It Is" (Northern Illinois University, 1976) (mimeographed).

Conclusions

Even though this section of the investigation was not the primary goal of this research, some interesting results were revealed in the analysis.

Reading achievement. The children in the experimental group, Group A, when results were controlled for I.Q., scored significantly higher in the word recognition component of reading achievement. There were also differences observed in the scores on comprehension and accuracy, but these were not significant when the word recognition variable was partialled out. However, without the ability called "word recognition", children will experience difficulty in their general reading development.

Attitude to and concept of reading. Findings revealed no significant difference between Groups A and B for attitude to and concept of reading. Questionnaire-type tools for research with young children often present a problem. Generally, young children wish to please the teacher and attempt to supply answers which receive praise. This tendency was observed in both Groups A and B children even though a non-threatening atmosphere in which any answer was acceptable, was established. Direct observation with a criterial check list of items related to attitude to and concept of reading may have revealed differences which were not apparent from the questionnaire responses.

The formal testing procedure reported above provided the investigator with little useful information about the effect of reading approaches upon the first grade child's reading strategies. The following analyses were based on Reading Miscue Analysis which reveals interesting information about the beginning reading process as well as the effect beginning approaches have upon the learning to read process.

READING MISCUE ANALYSIS

Each child's oral reading miscues were recorded on the "RMI Coding Sheet"[25] and firstly analyzed in general terms. These miscues were then evaluated more specifically in terms of Sound/Graphic Relationships, Grammatical Function, Corrections, Grammatical and Semantic Acceptability and Meaning Change. Comprehension and Grammatical Relationships were recorded from the Goodman and Burke "Patterns of Comprehension and Grammatical Relationships".[26] Results from these analyses were then transposed in the form of percentages to the "RMI Reader Profile".[27] Percentage scores on retelling and comprehension were also transposed to the line graph on the "RMI Reader Profile". The effectiveness of each reader's use of reading strategies was also noted on the "RMI Reader Profile".[28]

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[25] See Appendix F. [26] See Chapter IV, Table 7, p.159.

[27] See Appendix K.

Findings from the "Reading Miscue Inventory" were analyzed and evaluated for each section of the "RMI Reader Profile".[29] These included -

Sound/Graphic Relationships
Grammatical Function
Grammatical Relationships
Comprehension
Retelling Score
Reader's Use of Reading Strategies

Oral Reading Selections

Each child's oral reading was audiotaped from the selections shown in Table 14. Nine different stories were used and are presented in Table 14. The number of words in each selection varied and these are also recorded in Table 14, together with the number of children who read each selection.

A total of 4,230 and 5,490 words were read during the audiotaped sessions for Groups A and B respectively. This discrepancy in the number of words read was caused by the number of children in Group B who read "A Story About A Mouse".[30] This particular selection totalled 385 words and seven children in Group B read this story. Children in Group B were accustomed to short phrases and sentences and a limited number of words per line found in basal readers.

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[28] See Appendix K. [29] See Appendix K.

[30] Dorothy M. Glynn, "A Story About A Mouse", Dominoes Extras (Edinburgh : Oliver and Boyd, 1974).

For this reason, "A Story About A Mouse" was selected because it presented a more familiar print pattern to certain Group B children.

Table 14

Oral Reading Selections for Groups A and B

Selections[31]	Number of Words	Number of Children		Total Number of Words	
		Group A	Group B	Group A	Group B
1. "Space Pet"	740	1	-	740	
2. "A Day At Home"	205	-	1		205
3. "The Little Ducks' Swimming Tub"	135	10	8	1350	1080
4. "Dan And Carl Make Tents"	160	3	2	480	320
5. "Gran's Birthday"	360	2	1	720	360
6. "A Story About A Mouse"	385	2	7	770	2695
7. "Stories About Pets"	530		1		530
8. "What We Make With Bricks"	85	1	-	85	
9. "The Cat, The Bird And The Tree"	85	1		85	
		n=20	n=20	4230	5490

Difficulty was experienced in establishing the level at which each child should read so that the required number of miscues would be generated. In some cases several selections were attempted before a suitable level of difficulty was established. Group B children had learned to read from basal readers and related materials and these children showed a certain reticence when reading material looked different from the accustomed texts. Less difficulty was experienced in Group A children's reading of different selections because these children had read from a variety of books which were considered by the authors and editors to contain more natural language patterns.[32]

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[31] See Appendix E.

Description of Miscues Made During Oral Reading

Miscues were marked and classified into seven different types. These were Substitution, Omission, Insertion, Reversals, Non Words and those miscues which were corrected. The text was marked according to guidelines set down for the marking system in the "RMI Manual".[33] The following Tables 15 and 16 show the distribution of miscues among the above classifications for Groups A and B.

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[32] Landon H. Risteen, "Look At That Fool Rabbit", Research and Learning to Read (Illinois : Scott, Foresman and Company, 1970) (mimeographed), p.2; see also David Mackay, Brian Thompson and Pamela Schaub, Breakthrough To Literacy : Teacher's Manual (London : Longman Group Ltd, 1970), pp.142-143; see also Gregory Blaxall and Gordon Winch, Using Reading Rigby (Melbourne : Dorilman Press, 1977), p.25.

[33] Goodman and Burke, pp.28-33.

Table 15

Miscues Recorded For Oral Reading
Group A : Language-Based
Reading Approach

SUBJECTS	TOTAL	MISCUE CLASSIFICATION Substitution	Omission	Insertion	Reversal	Non Words	Correction
1 (3)*	12	11	0	1	-	-	-
2 (3)*	28	25	3	-	-	-	4
3 (5)*	41	32	6	3	-	-	2
4 (3)*	31	23	5	-	-	3	-
5 (3)*	34	16	18	-	-	-	-
6 (3)*	11	9	1	-	-	1	2
7 (3)*	24	20	3	-	-	1	-
8 (5)*	32	25	6	1	-	-	-
9 (3)*	6	5	0	1	-	-	-
10 (9)*	22	19	3	-	-	-	-
11 (3)*	28	26	1	1	-	-	2
12 (4)*	35	27	5	1	-	2	-
13 (3)*	26	24	2	-	-	-	5
14 (1)*	47	43	0	-	-	4	7
15 (8)*	24	15	9	-	-	-	3
16 (4)*	38	33	1	-	-	4	-
17 (6)*	44	42	1	1	-	-	11
18 (3)*	18	15	2	-	-	1	2
19 (6)*	47	40	6	-	-	1	3
20 (4)*	24	22	2	-	-	-	2
n=20	Σ=572	Σ=472	Σ=74	Σ=9	-	Σ=17	Σ=43

*Indicates oral reading selection from p.186.

Table 16

Miscues Recorded For Oral Reading Group B : Conventional Reading Approach

SUBJECTS	TOTAL	MISCUE CLASSIFICATION					
		Substitution	Omission	Insertion	Reversal	Non Words	Correction
1 (3)*	27	27	-	-	-	-	4
2 (4)*	38	37	1	-	-	-	4
3 (3)*	44	42	2	-	-	-	7
4 (3)*	47	45	2	-	-	-	2
5 (7)*	27	11	16	-	-	-	3
6 (6)*	42	35	4	3	-	-	15
7 (2)*	25	19	4	2	-	-	1
8 (3)*	19	17	2	-	-	-	-
9 (4)*	29	28	1	-	-	-	4
10 (5)*	48	43	4	1	-	-	3
11 (6)*	86	78	5	3	-	-	1
12 (6)*	53	38	14	1	-	-	-
13 (3)*	44	38	5	1	-	-	-
14 (3)*	26	22	-	2	-	2	-
15 (6)*	21	21	-	-	-	-	4
16 (6)*	95	83	7	2	-	3	5
17 (3)*	17	9	8	-	-	-	1
18 (3)*	18	18	-	-	-	-	2
19 (6)*	41	36	2	3	-	-	14
20 (6)*	67	47	17	3	-	-	4
n=20	=814	=694	=94	=21	-	=5	=74

*Indicates oral reading selection from p. 186.

In Group A children made a total of 572 miscues during audiotaped oral reading sessions. Of these miscues, 472 were classified as substitution miscues, seventy-four were omission miscues, nine were insertion miscues and seventeen were non-word miscues. Forty-three of the miscues were corrected, not necessarily successfully. A similar pattern emerged for Group B miscues, shown in Table 16.

A total of 814 miscues were made by Group B and of these, 694 were substitution miscues, ninety-four were omission miscues, twenty-one were insertion miscues and five of the total were non-words. Table 16 also indicates that seventy-four of the miscues were corrected in some way.

Children exposed to a language-based reading approach made miscues of 82.5 percent substitution, 12.9 percent omission, 1.6 percent insertion and 2.8 percent were non-words. Corrections were made on 7.5 percent of the miscues. Oral reading from children learning to read by the conventional approach produced miscues of 85.3 percent substitution, 11.5 percent omission, 2.6 percent insertion and .6 percent non-words. Correction behaviour occurred for 9.1 percent of the miscues made.

These results for miscue analysis were very similar to Weber's findings.[34] Substitution of one word for another comprised 80 percent of the total errors recorded by Weber.

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[34] Rose-Marie Weber, "A Linguistic Analysis of First Grade Reading Errors", Reading Research Quarterly, Vol.V, No. 3 (Spring 1970), p.435.

Omissions and insertions shared equally the remaining twenty percent.

Cohen[35] observed that the good readers in her study moved rapidly towards predominantly producing word substitution errors which amounted to 61 percent of the total by the end of first grade. Poor readers produced word substitution errors for 31 percent of the total and no response errors for 36 percent of the total. Goodman[36] found 57 percent of the miscues produced were classified as substitution and 31 percent were omission miscues. Insertion and more complex miscues increased with proficiency in reading, but were never significant in the Goodman research.

Quantity of Miscues

The following Table 17 indicates the distribution of percentage scores for miscues among the six different classifications for Groups A and B. From this table it may be noted that Group B totalled more miscues than Group A by 242. Error ratios presented by Clay[37] indicate that children in the Low category for reading had an error ratio of one in three, children in the Low Middle category made one in eight errors, High Middle category children made one error in fifteen words and in the High category children made one error in thirty-seven words. This evidence suggests that poorer readers make more errors. Clay found that the very best readers made less than one error in every hundred words.

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[35] Alice Sheff Cohen, "Oral Reading Errors of First Grade Children Taught by a Code Emphasis Approach", Reading Research Quarterly, Vol.X, No.4 (1974-1975), p.635.

[36] Yetta Goodman, "A Psycholinguistic Description of Observed Oral Reading Phenomena on Selected Young Beginning Readers" (unpublished doctoral dissertation) (Wayne State University, 1967), p.87.

[37] Marie M. Clay, "The Reading Behaviour of Five Year Old Children : A Research Report", New Zealand Educational Studies, Vol.2, No.1, 1967, p.18.

Table 17

Percentage Scores for Miscue Classifications for Groups A and B

		MISCUE CLASSIFICATION					
	TOTAL	Substitution	Omission	Insertion	Reversal	Non Words	Correction
GROUP A	572	472	74	9	-	17	43
% of total		82.5	12.9	1.6		2.8	7.5
GROUP B	814	694	94	21	-	5	74
% of total		85.4	11.5	2.6		0.6	9.1

The trend in this present research is the same as in the Clay Study. The best reader in Group A read "Space Pet", a total of 740 words and made a total of forty-seven miscues which was six miscues in every hundred words. In Group B, the very best reader made twenty-five miscues on a 205 word selection which was about twelve miscues every hundred words. Generally, Groups A and B averaged 13.5 and 14.8 miscues per hundred words respectively. In this study the children were reading material at a level of difficulty specifically set to generate miscues. More miscues per hundred words than in the Clay study would therefore be anticipated.

Ten children in Group A and eight children in Group B read the selection, "The Little Ducks' Swimming Tub".[38] A comparison of miscues generated from oral reading of this story for both groups shows in Table 18 that Group B produced more miscues per hundred words than did Group A.

Table 18

Miscues Made on "The Little Ducks' Swimming Tub" for Groups A and B

	Number of Miscues	Total Number of Words Read	Miscues per Hundred Words
Group A (n = 10)	218	1350	16
Group B (n = 8)	242	1080	22

The ten Group A children produced a total of 218 miscues when reading "The Little Ducks' Swimming Tub", whereas eight Group B children made a total of 242 miscues on the same selection. This meant that Group A children's miscues were recorded at a rate of sixteen per hundred words and Group B children produced twenty-two miscues per hundred words. Group A children generally produced less miscues per hundred words than did Group B children while reading this selection.

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[38] Ira E. Haron, "The Little Ducks' Swimming Tub", Study Book Level 4 (Glenview, Illinois : Scott, Foresman and Company, 1971), pp.12-13.

Quantity or frequency of miscue was not a particularly useful measure. Students who read quickly or were nervous or distracted often made more miscues when they read. Grammatical structure and conceptual load of particular stories contributed towards the number of miscues produced. The same subject may produce a different number of miscues in different stories considered to be at the same level of difficulty. The following data allowed quality rather than quantity of miscues to be analyzed to see if differences exist between Groups A and B in the use each child made of reading strategies developed while exposed to either a language-based or conventional reading approach.

Sound/Graphic Relationships

The Sound/Graphic language system is closely related, but measured separately. The reader's dependence upon this system was determined by a comparison of miscue and text in the following way. Omissions and insertions were not marked for Sound/Graphic Relationships. Each miscue and text word was divided into three parts : beginning, middle and end, and the Sound/Graphic Relationships were assessed by a comparison of these parts. If two parts of the miscue were similar to the text word, then a high degree of similarity was recorded by checking the "Y" box. One part out of three was considered similar to "some degree" and the "P" box was checked. No similarity between the miscue and text word was recorded by checking the "N" box.

The following miscues show a high degree of Sound/Graphic Relationships with the text word and were recorded as "Y" -

Miscue	Text	
fathers	feathers	(reader 13, Group A)
walking	working	(reader 14, Group A)
Carol	Carl	(reader 16, Group A)
Daddy	Debby	(reader 1, Group B)
story	store	(reader 7, Group B)

These same miscues were recorded as having a high degree of graphic similarity. "Some" degree of Sound/Graphic Relationships may be seen in the following miscues -

Miscue	Text	
running	swimming	(reader 10, Group A)
banged	began	(reader 13, Group A)
the	their	(reader 4, Group A)
sweet	smart	(reader 4, Group B)

No similarity for Sound/Graphic Relationships was recorded for the following miscues -

Miscue	Text	
for	was	(reader 3, Group A)
had	very	(reader 4, Group B)

The analysis of miscues in terms of Sound/Graphic Relationships was converted to percentages and recorded on the "RMI Reader Profile".[39]

Descriptive data were used to study differences between Groups A and B in the use children made of the grapho-phonic language system.

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[39] See Appendix K.

Hypothesis 4A. At the conclusion of first grade, Groups A and B will have no difference in percentage scores recorded on the "RMI Reader Profile"[40] for Sound/Graphic Relationships.

Findings. For High Sound Relationships, Groups A and B had means of 45.7 and 33 percent respectively. Some Sound Relationships rated means of 46.7 and 53.3 percent and No Sound Relationship means were recorded as 7.6 and 13.7 percent for Groups A and B respectively. Means for High, Some and No Graphic Relationships were recorded as 47.2 and 32.9 percent for High, 46.4 and 52.6 percent for Some and 6.4 and 14.5 percent for No Graphic Relationships for Groups A and B respectively.

Sound Relationships. All children in Groups A and B used the sound system of language to identify unknown words when reading orally. The combined mean percentages of "High" and "Some" sound similarity indicated that miscues sound like the text 92.2 percent and 86 percent of the time for Groups A and B respectively. "No" sound similarity between miscue and text words was recorded for Groups A and B as 7.2 percent and 13.7 percent respectively. A comparison of Groups A and B is presented on frequency graphs shown on Figures 8, 9 and 10.

Very little difference was observed between Groups A

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[40] See Appendix K.

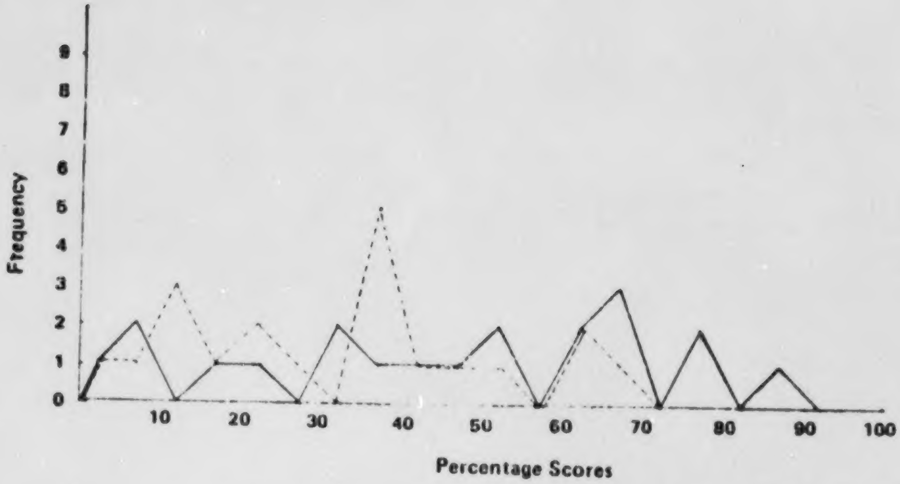

Figure 8. Comparison of Groups A and B on Percentage Scores For Miscues With High Sound Relationships

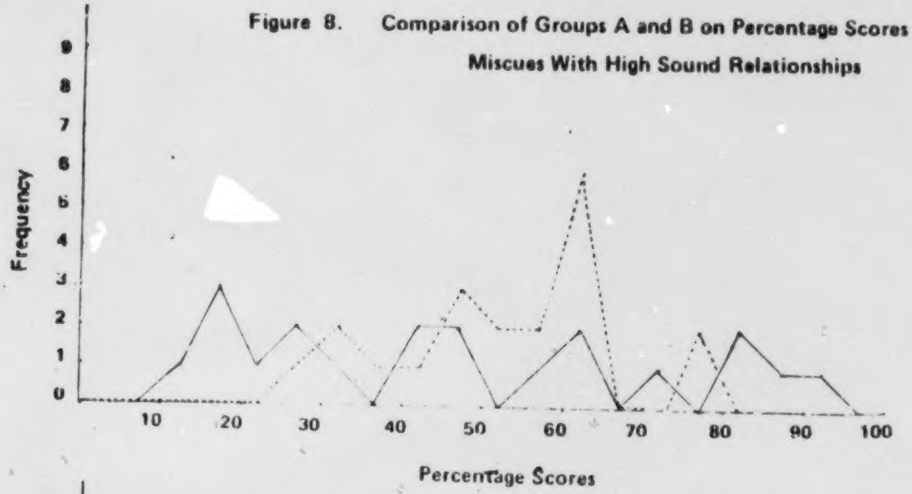

Figure 9. Comparison of Groups A and B on Percentage Scores For Miscues With Some Sound Relationships

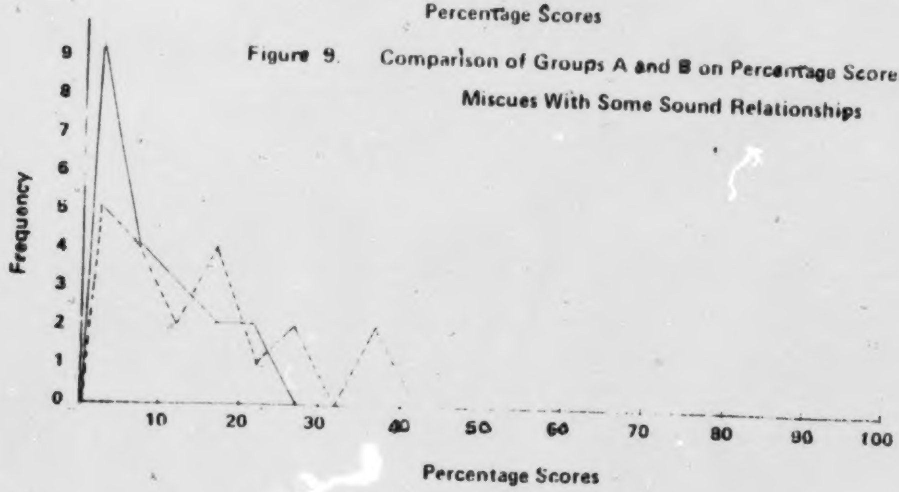

Figure 10. Comparison of Groups A and B on Percentage Scores For Miscues With No Sound Relationships

Group A ———— n = 20

Group B - - - - - n = 20

and B in the use made of the sound system of language. The Frequency Graphs present a similar pattern for each group though there is a tendency for Group A to score slightly higher percentages than Group B. Five Group B children clustered around the 32 percent to 42 percent scores for miscues with High Sound Relationship while Group A tended to have a regular pattern and three children scored above 70 percent for miscues with High Sound Relationship. Seven children in Group B clustered around the 57 percent to 62 percent for miscues with Some Sound Relationship but otherwise the scores were evenly distributed. Six Group B children scored between 27 percent and 42 percent for miscues with No Sound Relationship. Miscues for these six Group B children were often words from basal readers. An example of this is -

Miscue	Text
help	dear
down	back

Children in Group B had learned these words as sight words and they were preceded by "Oh" and "Jump" as they were in the basal reader.

All children in Group A produced 27 percent of their miscues with No Sound Relationship whereas Group B scored 2 percent to 42 percent for miscues with No Sound Relationship. These differences meant that Group A children's miscues approximated the text words in Sound Relationship more closely than did the miscues recorded for Group B children.

Graphic Relationships. Once again all children used the graphic cue system to recognize words. Initial letters were a much more useful aid to word identification than the medial or final letters. For example -

pool for pond
fellow for father
cuddly for cute.

Data indicated that the mean percentage scores for miscues with High, Some and No Graphic Relationships for Groups A and B were 47.2 percent and 32.9 percent High, 46.4 percent and 52.6 percent Some, 6.4 percent and 14.5 percent No Graphic Relationships. The following graphs in Figures 11, 12 and 13 show a pattern similar to the Sound Relationships graphs.

These miscues with Graphic Relationships were very closely related to the miscues with Sound Relationships. Group A had three children whose miscues had High Graphic Relationships for more than 72 percent of the time : six Group B children had miscues with No Graphic Relationships for more than 27 percent of the time whereas all Group A children had miscues with No Graphic Relationship for 22 percent or less of the time.

Sound/Graphic Relationships. Children associate the sound/graphic language systems when reading. Even though Group A children learned to make sound/graphic associations within the context of reading, they developed in a similar

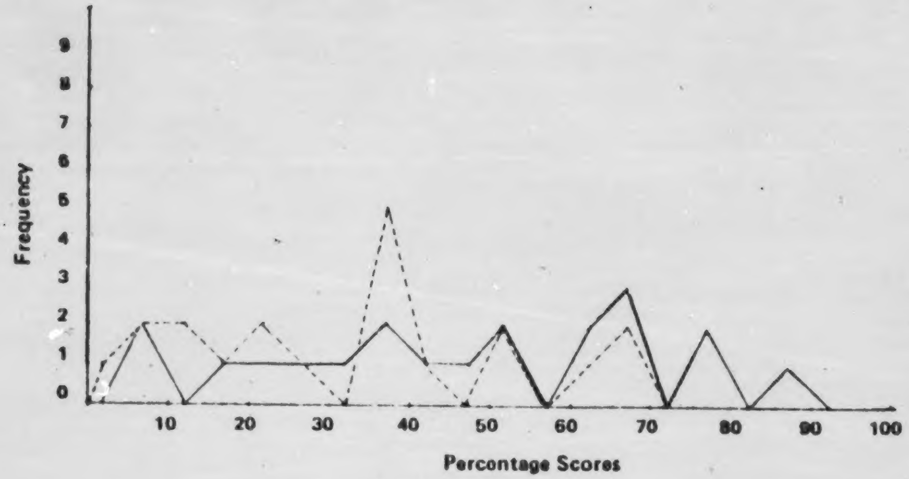

Figure 11. Comparison of Groups A and B on Percentage Scores For Miscues With High Graphic Relationships

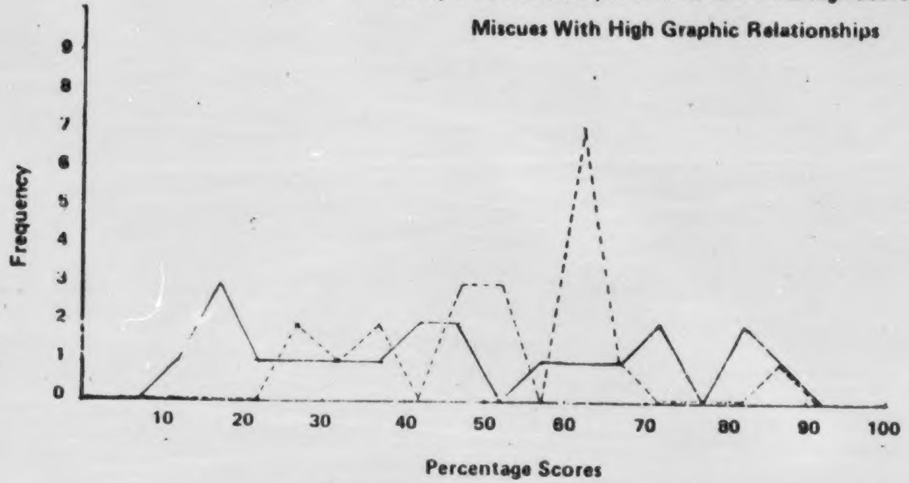

Figure 12. Comparision of Groups A and B on Percentage Scores For Miscues With Some Graphic Relationships

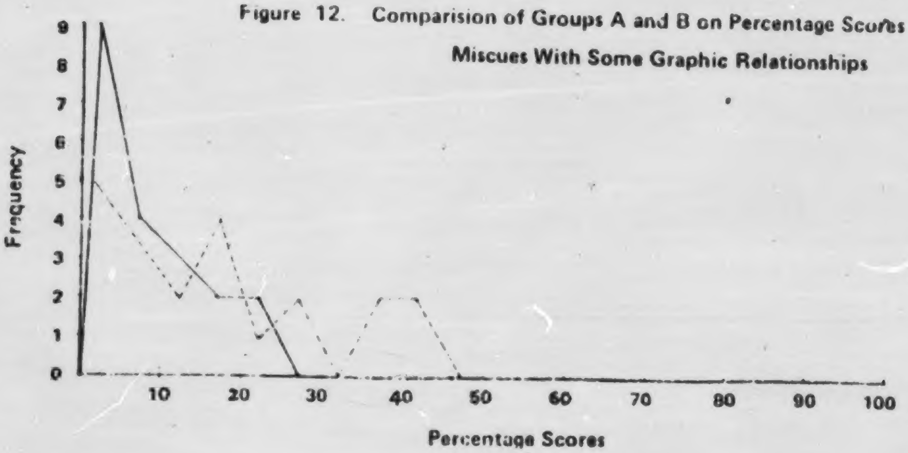

Figure 13. Comparison of Groups A and B on Percentage Scores For Miscues With No Graphic Relationships

Group A ———— n = 20

Group B - - - - - - - - n = 20

manner to Group B children who had been instructed in sound/graphic associations during skill development lessons. These findings are supported by Biemiller[41] who suggested that children pass through three phases[42] in the mastery of sound/graphic associations. Smith[43] maintained that through experience, an increase in the efficiency of letter feature identification and letter sequences should increase word perception. Through experience in reading these children had learned to associate sounds and symbols with often a high degree of success.

As previously stated in Chapter III, Weber[44] found that many of the errors made by children when they were reading orally were graphically similar to the correct response. Weber divided readers into High and Low groups. Of the 503 errors made by the High group, 430 had graphic similarity. The Low group had 280 of its 353 errors graphically similar to the text words. This meant that errors made by High and Low groups were graphically similar to the text 85.5 percent and 79 percent of the time respectively.[45] These results reported by Weber had the same trend as this present research when miscues made by Group A and Group B children had a Graphic Relationship 89 percent and 84 percent of the time respectively.

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[41] Andrew Biemiller, "The Development of the Use of Graphic and Contextual Information as Children Learn to Read", Reading Research Quarterly, Vol.VI, No.1 (Fall 1970), pp.93-94.

[42] See Chapter II, pp.37-38.

[43] F. Smith, Understanding Reading (New York : Holt, Rinehart and Winston, Inc., 1971), pp.226-227.

[44] Rose-Marie Weber, "A Linguistic Analysis of First Grade Reading Errors", Reading Research Quarterly, Vol.V, No.3 (Spring 1970), pp.438-444.

As in this present research, Weber found that "beginning letters were a salient cue"[46] for children to recognize words.

Allen's research supports the findings on Sound/Graphic Relationships in this study. Allen reported that -

1. Means of graphic proximity is higher than the mean of phonemic proximity.
2. Phonemic proximity tends to follow patterns set by graphic proximity levels.
3. High graphic proximity levels indicate that graphic input has more influence in the choice of an oral response.
4. Readers at all levels are proficient at establishing relationships between the graphic and phonemic cue systems.[47]

A code emphasis was the approach used in the Cohen study[48] when after one year at school, up to 75 percent of the substitution errors were graphic approximations of the text words. Even though children were exposed to a different reading approach in this present study, miscues were graphically similar to the text 75 percent of the time.

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[45] Weber, p.440.

[46] Weber, p.440.

[47] P. David Allen, "Some General Implications Concerning Specific Taxonomy Categories", Findings of Research in Miscue Analysis : Classroom Implications, ed. P. David Allen (ERIC Clearinghouse in Reading and Communicative Skills, National Council of English Teachers, October, 1976), p.70.

[48] Cohen, p.633.

The above results indicate that children in Groups A and B use the grapho-phonic language system effectively regardless of the reading approach adopted. Children learn to use the grapho-phonic language system when reading material is difficult or unfamiliar. Results indicate that there is no difference between Groups A and B in the percentage scores on the Sound/Graphic Relationships grid.

Grammatical Function

A much more useful analysis is proposed when a comparison is made between the two groups on analyses of miscues in terms of Grammatical Function, Grammatical Relationships and Comprehension because the identification of meaning is basic to the development of effective reading strategies.

Miscues were analyzed for Grammatical Function by the application of "RMI Question 5".[49] "Y", "P" or "N" was then checked on the "RMI Coding Sheet"[50] and percentages for "Identical", "Indeterminate" or "Different" Grammatical Function were recorded on the "RMI Reader Profile".[51] Hypothesis 4B which follows, relates to the Grammatical Function of a miscue which evaluates the beginning reader's use of his syntactic language system.

Hypothesis 4B. At the conclusion of first grade,

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[49] See Appendix G. [50] See Appendix F. [51] See Appendix K.

Groups A and B will have no difference in percentage scores recorded on the "RMI Reader Profile" for Grammatical Function.[52]

Findings. Miscue analysis indicated that all children in Groups A and B had a sense of Grammatical Function. The means recorded for Groups A and B for miscues with Identical Grammatical Function were 55.6 percent and 43.5 percent respectively. For miscues with Different Grammatical Function the mean for Group A was 34.4 percent and for Group B 48.4 percent. Miscues with Indeterminate Grammatical Function means were recorded as 9.9 percent for Group A and 8.06 percent for Group B.

These mean percentages indicated that Group A miscues had Identical Grammatical Function as the text word for 12 percent of the time more often than did the Group B miscues. Group B miscues also indicated that Different Grammatical Function was evident 14 percent of the time more often than for Group A. Miscues with Indeterminate Grammatical Function percentage differences between Groups A and B were negligible.

Grammaticality was operating more efficiently for Group A than Group B. To make a comparison between the Groups, frequency graphs were drawn in Figures 14, 15 and 16 and these differences are presented.

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[52] See Appendix K.

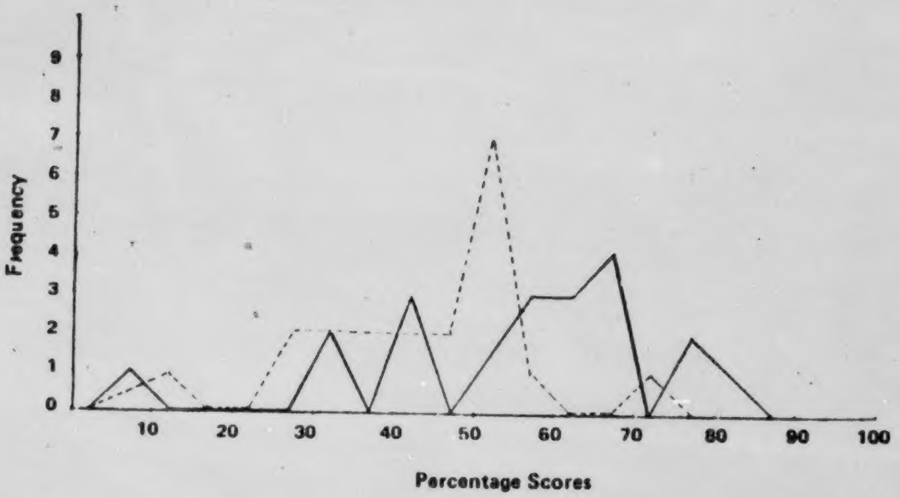

Figure 14. Comparison of Groups A and B on Percentage Scores For Miscues With Identical Grammatical Function

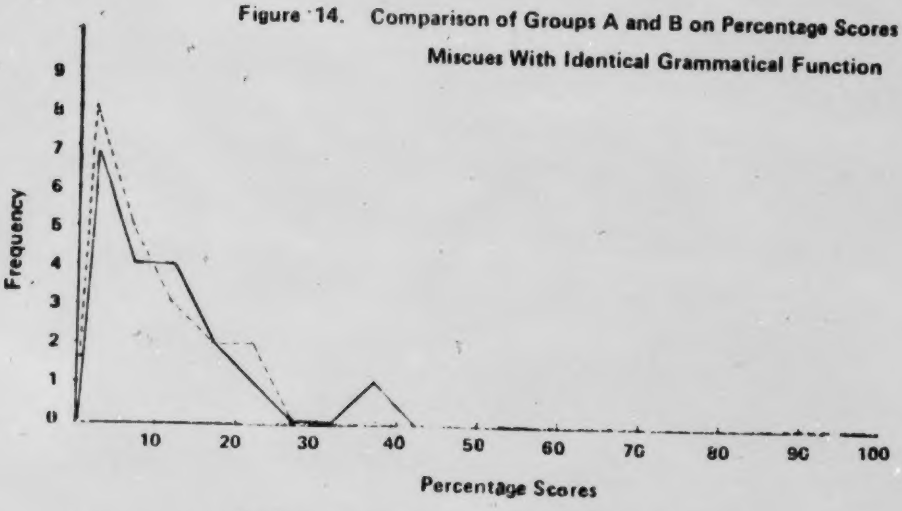

Figure 15. Comparison of Groups A and B on Percentage Scores For Miscues With Indeterminate Grammatical Function

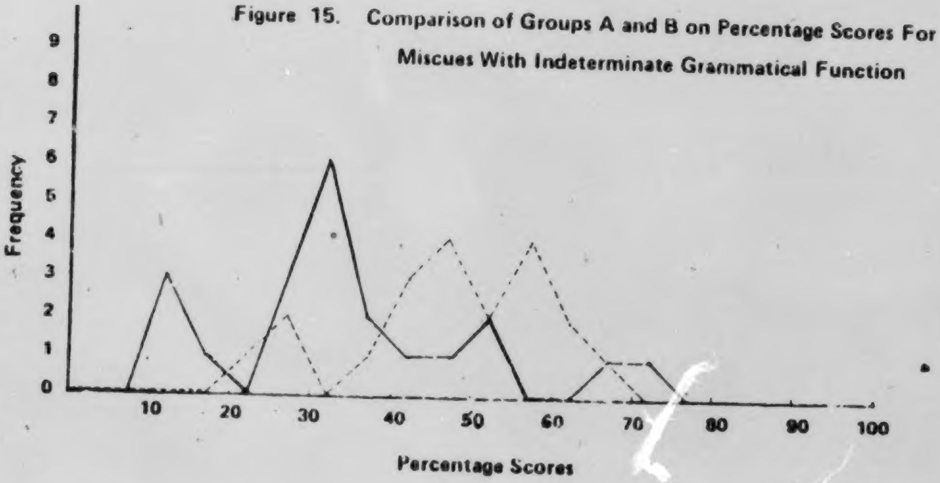

Figure 16. Comparison of Groups A and B on Percentage Scores For Miscues With Different Grammatical Function

Group A ———————— n = 20

Group B - - - - - - - - n = 20

Figure 14 shows the percentage scores for miscues with Identical Grammatical Function. In this graph, eleven Group B children have between 52 percent and 72 percent of the miscues with Identical Grammatical Function, whereas there are twelve Group A children who score between 57 percent and 82 percent for miscues with Identical Grammatical Function.

Figure 15 shows miscues with Indeterminate Grammatical Function and the difference between Groups A and B are negligible.

For miscues with Different Grammatical Function, Figure 16 shows that the majority of Group A cases fall below 42 percent whereas the majority of Group B children have scores between 42 percent and 67 percent. It can be concluded that Group B children are not as aware of Grammatical Function as Group A children when reading orally.

It would seem extremely likely that a reading approach which failed to associate spoken language with print would give children less opportunity to develop an awareness of grammar when reading. Group B children therefore had less opportunity to experience how the syntactic language system operated when reading than did the Group A children exposed to a language-based reading approach. Group A children were able to make the close association between their language and reading and so grammaticality operated effectively.

Burke[53] found that beginning readers bring a strong sense of the syntactic language system to the reading process. Retention of Grammatical Function for miscues made by second grade readers for each part of speech was as follows -

Part of Speech	Percent for Same Grammatical Function of Miscues
Noun	77 percent
Adjective	66 percent
Function Word	60 percent
Verb	52 percent
Adverb	32 percent
Mean for total Grammatical Function	56 percent

A mean of 56 percent was computed for miscues which indicated retention for overall Grammatical Function of miscues. Group A children involved in this present research had a mean of 55.6 percent for miscues with Identical Grammatical Function. This score relates closely to Burke's findings. Group B children had a mean percentage score of 12.5 percent less than the mean percent recorded by Burke for retention of Grammatical Function.

There is a difference between Groups A and B in the scores recorded on the "RMI Reader Profile" Grammatical Function grid. Group A children's miscues indicated that

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[53] Carolyn L. Burke, "The Three Cue Systems : Syntactic", Findings of Research in Miscue Analysis, ed. P. David Allen (ERIC Clearinghouse on Reading and Communication Skills : National Institute of Education, 1976), p.82.

Grammatical Function was Identical more often than miscues produced by Group B children. Group A children made better use of the syntactic language system when reading than did Group B.

Burke stated -

> Beginning readers quickly demonstrate facility in handling the grammatical structure of their language. This is a strength which they bring from their oral language development. The more clearly they see speech and reading as alternate expressions of the language process and the more they are encouraged to use their language intuition, the more rapid will be their initial growth as readers.[54]

Group A children were able to associate their oral language with reading and so used the syntactic language system effectively.

Grammatical Relationships

Miscues for Grammatical Relationships and Comprehension were initially checked on the "RMI Coding Sheet"[55] in columns for Correction, Grammatical Acceptability, Semantic Acceptability and Meaning Change. Patterns of Grammatical Relationships[56] involved Correction, Grammatical Acceptability and Meaning Change. These Patterns of Grammatical Relationships resulted in either Strength, Partial Strength, Weakness or Overcorrection columns being checked. Percentage scores were computed for each column. The final result was then transferred to the "RMI Reader Profile".[57] The following hypothesis was tested.

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[54] Burke, p.85.

[55] See Appendix F.

[56] See Chapter IV, Table 7, p.159.

Hypothesis 4C. At the conclusion of first grade, Groups A and B will have no difference in percentage scores recorded on the "RMI Reader Profile" for Grammatical Relationships.

Findings. Grammatical Relationships mean percentages for Strength, Partial Strength, Weakness or Overcorrection for Groups A and B are presented in the following Table 19.

Table 19

Mean Percentages for Grammatical Relationships for Groups A and B

	Strength	Partial Strength	Weakness	Overcorrection
Group A	54.1	7.1	35.6	3.2
Group B	45.9	1.9	49.2	3.0

These mean percentage scores indicate that Group A means are 8.2 percent higher in Strength and 13.6 percent lower on Weakness of miscues for Grammatical Relationships than Group B. The combined percentage scores for miscues with Strength and Partial Strength of Grammatical Relationships have a difference in favour of Group A of 13.4

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[57] See Appendix K.

percent. These results indicate that the miscues of Group A children showed better Grammatical Relationships than miscues made by Group B children. In terms of Correction, Grammatical Acceptability and Meaning Change the quality of miscues made by Group A children were, in general, better than those made by Group B children.

The following Figures 17, 18 and 19 allow comparisons to be made. Evidence of Overcorrection was negligible and each group scored about 3 percent. Figure 17 makes a comparison between Groups A and B on miscues with Strength of Grammatical Relationships; Figure 18 shows differences in combined percentage scores for miscues with Strength and Partial Strength of Grammatical Relationships; and Figure 19 makes a comparison between the groups on miscues with Weakness of Grammatical Relationships.

Figure 17 illustrates the fact that fifteen children in Group B had scores of 47 percent or less of miscues with Strength of Grammatical Relationships whereas Group A children's miscues had in excess of 47 percent with Strength in Grammatical Relationships.

Figure 18 shows that the combined percentage scores for miscues with Strength and Partial Strength of Grammatical Relationships also favoured Group A. Sixteen Group B children had 52 percent or less and sixteen Group A children had 52 percent or more recorded for miscues which included Strength and Partial Strength of Grammatical Relationships.

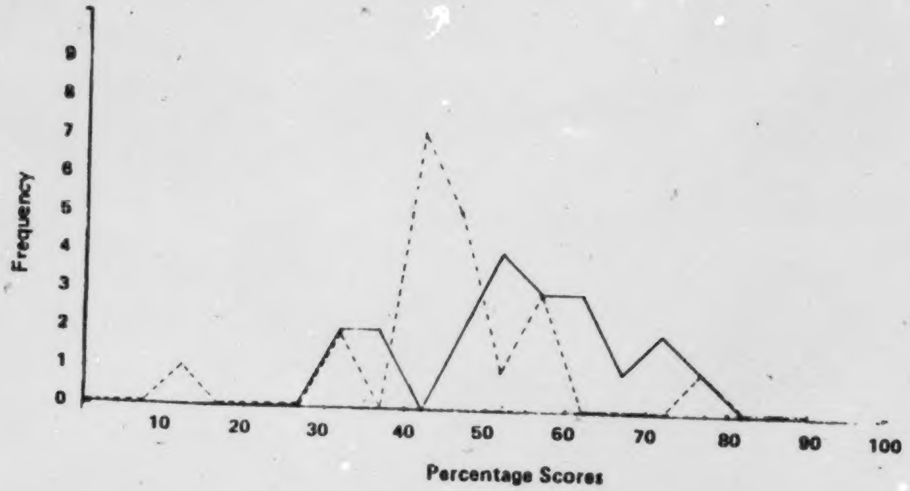

Figure 17. Comparison of Groups A and B on Percentage Scores For Miscues With Strength of Grammatical Relationships

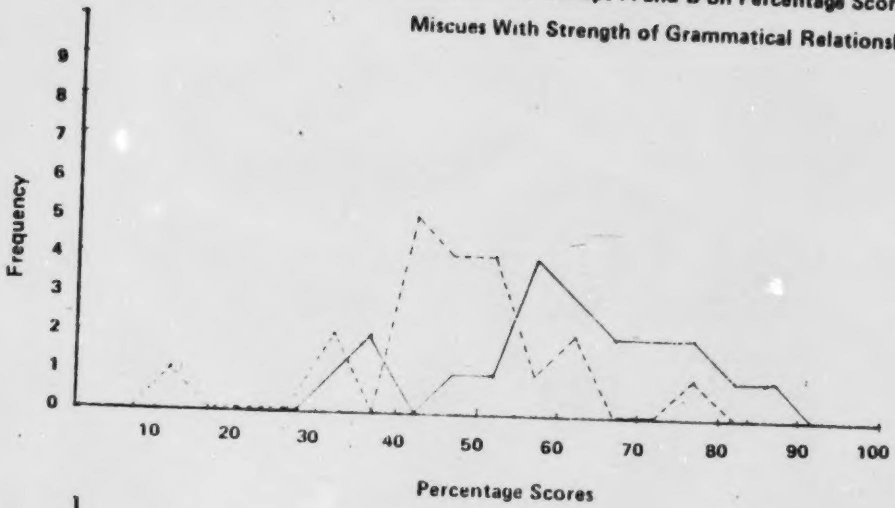

Figure 18. Comparison of Groups A and B on the Combined Percentage Scores For Miscues With Strength and Partial Strength of Grammatical Relationships

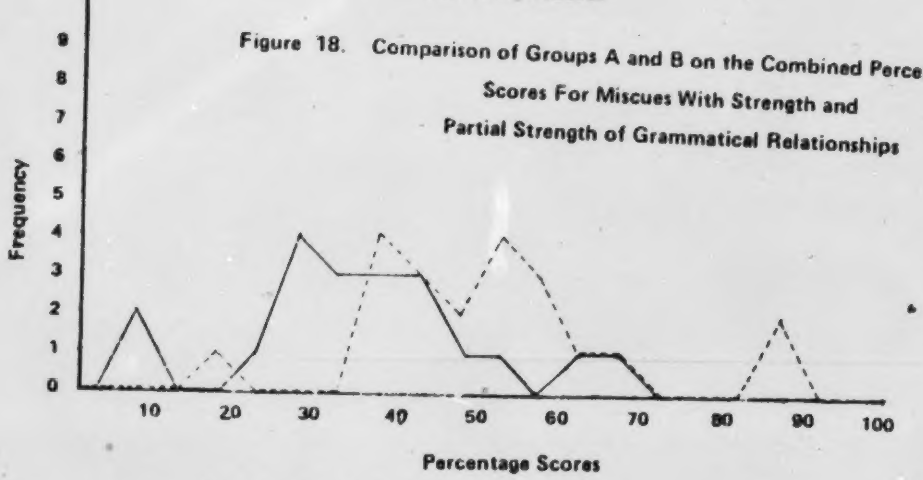

Figure 19. Comparison of Groups A and B on the Percentage Scores For Weakness of Grammatical Relationships

Group A ——— n = 20

Group B - - - - - n = 20

Figure 19 indicates that fourteen Group A children scored below 50 percent for miscues with Weakness of Grammatical Relationships. Eleven Group B children produced miscues with Weakness of Grammatical Relationships more than 50 percent of the time.

These results indicate that there is a difference between Groups A and B in the Grammatical Relationships of miscues and Hypothesis 4C can be rejected. The difference in percentage scores recorded on the "RMI Reader Profile"[58] for Grammatical Relationships was in favour of Group A. The overall quality of miscues produced by Group A children were better than those produced by Group B children.

Clay[59] analyzed substitution errors of children exposed to a similar reading approach to the experimental group in this present research. Grammatical acceptability of errors was recorded with a mean of 72 percent for the one hundred first grade children in Auckland, New Zealand. Clay found that the children in her study depended on syntax of the language at points of uncertainty in reading.

Burke[60] also reported miscues with Grammatical Acceptability but considered that language is composed of three interrelated systems and that it is impossible to consider the syntactic system without the grapho-phonic and semantic systems. Grammatical Relationships which involved Correction, Grammatical Acceptability and Meaning Change were not reported as a score by Burke or Clay and no research is available to make comparisons with scores recorded for Grammatical Relationships in this study. It seems logical however to analyze a miscue for Correction, Grammatical Acceptability and Meaning Change and then apply this pattern to evaluate Grammatical Relationships.

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[58] See Appendix K.

[59] Marie M. Clay, "A Syntactic Analysis of Reading Errors", Journal of Verbal Learning and Verbal Behaviour, No.7, (1968), pp.434-438.

[60] Burke, pp.79-80.

Weber[61] found that 66.6 percent of the errors made by first grade children were acceptable to both preceding and following grammatical content. This result approximates the score of 61.2 percent for Group A children but is higher than the 47.8 percent recorded for Group B children in this present study. Weber[62] made a judgment for a semantic appropriateness of errors which were in syntactically acceptable sentences. 92 percent of the errors were judged to have semantic appropriateness and grammatical acceptability of meaning for the rest of the sentence.

Cohen[63] reported 73 percent and 28 percent grammatical acceptability of substitution errors for "Good" and "Poor" readers respectively. In Cohen's study children in the experimental group developed grammaticality as their word recognition developed. These children were inhibited in their use of the syntactic language system in the initial stages because instruction emphasized sound and symbol associations.

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[61] Weber, pp.443-444. [62] Weber, p.444. [63] Cohen, p.648.

Comprehension and Retelling

Comprehension. Miscues analyzed in terms of Correction, Semantic Acceptability and Meaning Change were recorded as "Y", "N" or "P" in response to Questions 6, 7 and 8 from the "RMI Manual".[64] From the Patterns of Comprehension[65] the No Loss, Partial Loss or Loss column for Comprehension was checked. Percentage scores were then computed for each of the three columns and these scores were then recorded on a line graph on the "RMI Reader Profile".[66] Comprehension therefore involved miscues assessed for Correction, Semantic Acceptability and Meaning Change. Patterns of Comprehension involved all the possible combinations for the "Y", "P" and "N" responses.

Examples of these Patterns of Comprehension are : If a miscue was corrected, No Loss was always recorded regardless of Semantic Acceptability or Meaning Change. If a miscue was not corrected, but was Semantically Acceptable and had no Meaning Change, then No Loss was recorded. Partial Loss was recorded if there was no Correction, partial Semantic Acceptability and partial Meaning Change. Loss was recorded in each case if there was a partial or full Meaning Change, if there was partial or no Semantic Acceptability and if miscues were partially or not Corrected.

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[64] See Appendix G.

[65] See Chapter IV, Table 7, p.159.

[66] See Appendix K.

The following hypothesis was studied by means of descriptive data.

Hypothesis 5. At the conclusion of year one in Groups A and B, there will be no difference in scores on the "RMI Reader Profile" for retelling and comprehension.[67]

Findings. Mean percentage scores for No Loss, Partial Loss and Loss of Comprehension are tabulated in Table 20 so that comparisons can be made.

Table 20

Mean Percentage Scores for Comprehension for Groups A and B

	No Loss	Partial Loss	No Loss and Partial Loss	Loss
Group A	53.3	13.2	66.5	33.5
Group B	44.6	11.7	56.3	43.7

The Group A mean for No Loss of Comprehension is 8.7 percent higher than the Group B mean. When combined with Partial Loss of Comprehension, Group A mean score is almost

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[67] See Appendix K.

10 percent higher than Group B. The Comprehension Loss score mean is accordingly almost 10 percent lower for Group A than Group B. Miscues made by Group A children indicated that the children were more effectively using the semantic language system than were Group B children.

Figures 20, 21 and 22 illustrate the differences between Groups A and B for No Loss, a combination of No Loss and Partial Loss, and Loss of Comprehension for miscues.

Figure 20 illustrates that twelve Group A children scored higher than 50 percent for miscues with No Loss of Comprehension where six Group B children scored better than 50 percent for miscues with No Loss of Comprehension.

Figure 21 shows the combined No Loss and Partial Loss scores for Groups A and B.

Twelve children in Group A scored more than 60 percent No Loss and Partial Loss of Comprehension and seven Group B children scored about 60 percent for their combined scores.

A comparison between Groups A and B for Loss of Comprehension may be made from Figure 22. Twelve children in Group A have less than 40 percent Loss in Comprehension whereas seven Group B children have less than 40 percent Loss of Comprehension. This means that eight Group A children have a Comprehension Loss higher than 40 percent and none above 62 percent, while thirteen Group B children scored above 40 percent and one above 70 percent for Loss in Comprehension.

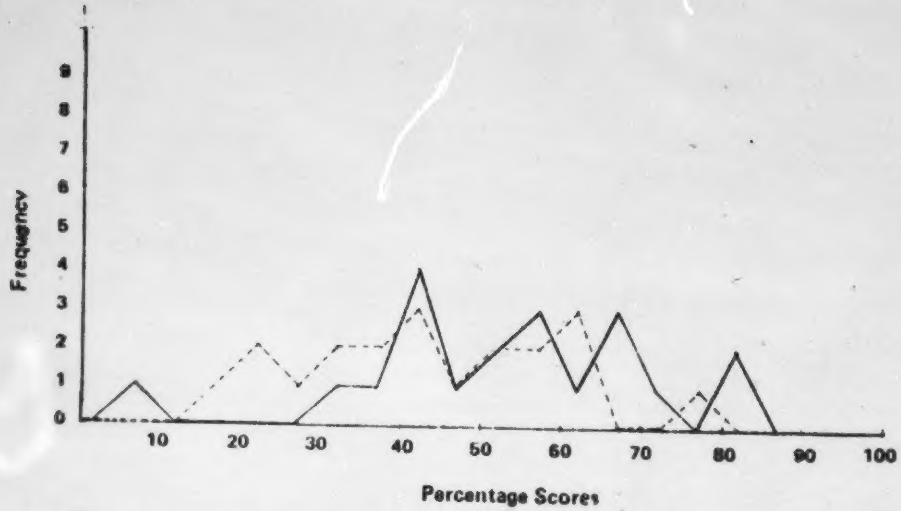

Figure 20. Comparison of Groups A and B on the Percentage Scores For No Loss in Comprehension

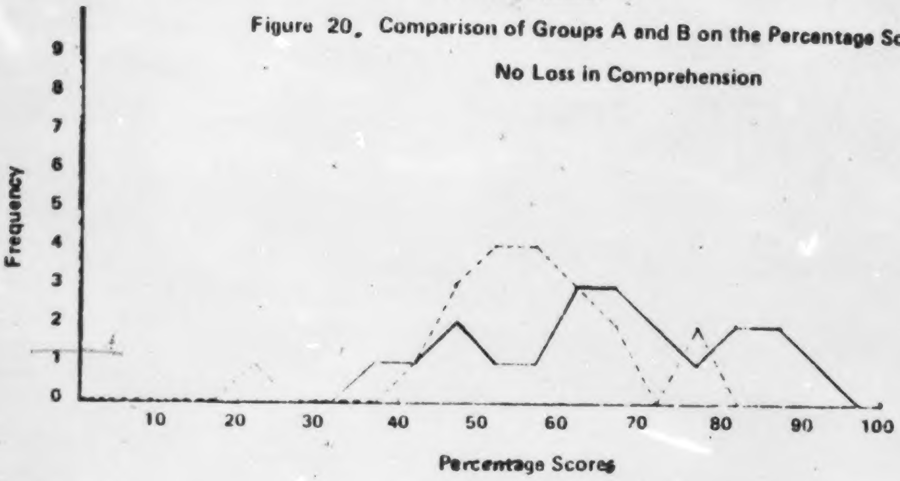

Figure 21. Comparison of Groups A and B on the Percentage Scores For No Loss and Partial Loss in Comprehension

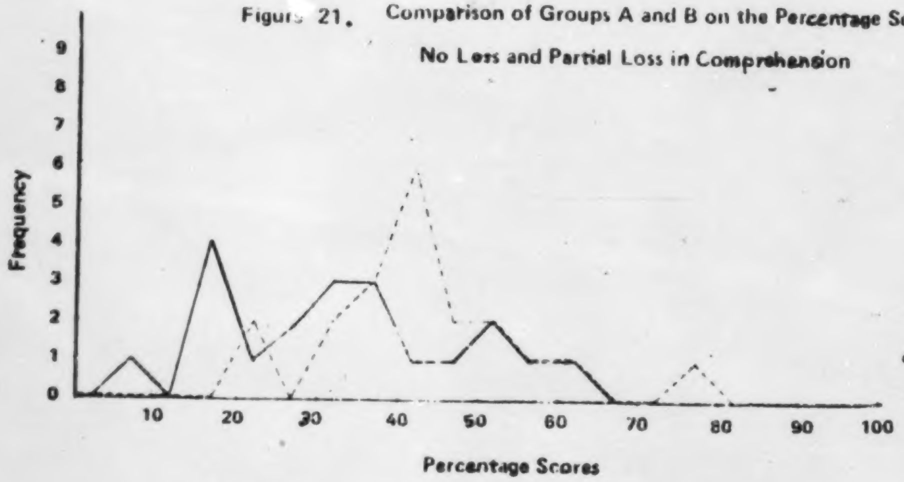

Figure 22. Comparison of Groups A and B on the Percentage Scores For Loss in Comprehension

Group A ———— n = 20

Group B - - - - - n = 20

Weber[68] analyzed errors in terms of semantic appropriateness for the passage and found that 67.8 percent of errors were appropriate to the preceding context of the story. These findings were arrived at differently, but seemed to evaluate the same dimension in reading, i.e. comprehension. Recorded results in this present research were similar to those presented by Weber. Group A had a mean of 66.4 percent and Group B had a mean of 56.4 percent for the combined scores of No Loss and Partial Loss in Comprehension.

There is a difference between Groups A and B in Comprehension. This difference favours Group A because miscues analyzed were corrected, were semantically acceptable and caused no meaning change more often than the miscues produced by Group B children. The children's exposure to a language-based reading approach which emphasized meaning acquisition rather than isolated skill development was the possible cause.

Retelling. For each story selection a format for "Unaided" and "Aided" retelling of the story was planned.[69] Forty points were allocated to "Character Development" and sixty points to "Events". During "Aided Retelling" open-ended questions were structured to stimulate thinking and elicit more information. Examples of these are as follows -

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[68] Weber, p.450.

[69] See Appendix E.

Tell me more about ________________________________
character mentioned by subject

Why do you think __________________________ did that?
character mentioned by subject

How do you think __________________________ happened?[70]
event mentioned by subject

For the "Unaided Retelling", children were simply asked to tell the story as they remembered it. Retelling of stories was audiotaped, and later evaluated and the results converted to percentages.

Findings. For Group A the scores for retelling ranged between 23 percent and 72 percent and for Group B the range was between 10 percent and 55 percent. Group A mean scores for retelling was 49.5 and for Group B the mean was 34.3. There was a difference of 15.2 percent in the means of Groups A and B and a frequency graph was drawn and is presented in Figure 23 so that comparisons between the groups in retelling scores can be made.

Figure 23 shows that seventeen children in Group A scored more than 40 percent in retelling while eight children in Group B scored more than 40 percent in retelling. Three children in Group A scored less than 40 percent and twelve children in Group B scored less than 40 percent in retelling. Regardless of the number of miscues made, all children were able to indicate their identification of meaning from their reading by retelling part of the context. Group A children scored higher percentages for retelling than did Group B children.

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[70] Y. Goodman and C. Burke, "Reading Miscue Inventory : Evaluation Form" (1976). (Unpublished addenda to Reading Miscue Inventory Manual (New York : MacMillan Company, 1973) (mimeographed).

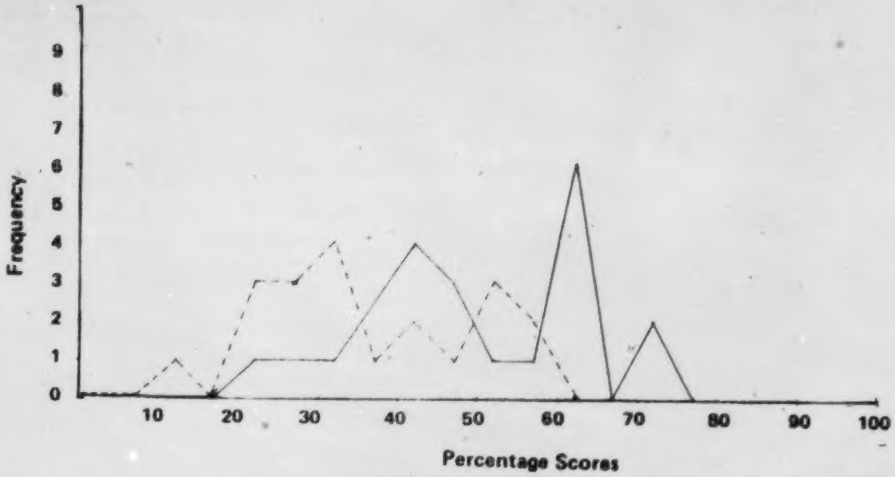

Figure 23. Comparison of Groups A and B on the Percentage Scores For Retelling

Group A ———— n = 20

Group B - - - - - - n = 2(

Comprehension and retelling scores indicate that there is a difference between the groups and Hypothesis 5 can be rejected. Inspection of scores for comprehension and retelling indicate that the observed difference favours Group A.

Scores for Comprehension and Retelling were then applied to Table 8[71] p.160 which indicates the Comprehension Pattern and Retelling Score applied to the reader's use of reading strategies.

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[71] Chapter IV, p.160.

Reader's Use of Reading Strategies

Table 21 shows the distribution of the two groups among Highly Effective, Moderately Effective, Some Effective and Ineffective Reading Strategies. Hypothesis 6 was tested for significance.

Hypothesis 6. At the .01 level of significance, Groups A and B after one year at school will have no difference in the effectiveness of reading strategies.

In Group A three children had "Highly Effective", eleven children had "Moderately Effective", five children had "Some Effective" and one child had "Ineffective" reading strategies. One child had "Highly Effective", four had "Moderately Effective", thirteen had "Some Effective" and two had "Ineffective" reading Strategies in Group B. Because differences were observed to exist between the groups in the effectiveness of reading strategies, a chi-square[72] was computed to assess if these differences were significant at the .01 level. A Contingency Table is presented in Table 22.

Hypothesis 6 is rejected. There is a difference between the groups in the effectiveness of reading strategies used by these first grade children.

The nature of this difference between Groups A and B in the effectiveness of reading strategies can be discerned

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[72] Popham and Sirotnik, p.274.

Table 21

Reader's Use of Reading Strategies

SUBJECTS	GROUP A				GROUP B			
	HE	ME	SE	IE	HE	ME	SE	IE
1		*				*		
2			*				*	
3		*				*		
4			*				*	
5				*				*
6	*					*		
7	*						*	
8			*				*	
9		*					*	
10			*		*			
11		*				*		
12			*				*	
13		*					*	
14		*					*	
15		*					*	
16		*					*	
17		*						*
18		*					*	
19		*					*	
20	*						*	
	3	11	5	1	1	4	13	2

HE Highly Effective
ME Moderately Effective
SE Some Effective
IE Ineffective

Table 22

Contingency Table to Show Effectiveness of Reading Strategies for Groups A and B

	Highly Effective	Moderately Effective	Some Effective	Ineffective	TOTAL
Group A	1	11	5	1	20
	(2)*	(7.5)*	(9)*	(1.5)*	
Group B	1	4	13	2	20
	(2)*	(7.5)*	(9)*	(1.5)*	
TOTAL	4	15	18	3	40

* Expected scores in parenthesis.

$$\chi^2 = \sum \frac{(O-E)^2}{E}$$

$$\chi^2 = 15.8$$

With three degrees of freedom, the χ^2 value of 15.8 is significant beyond the .01 level, ($\chi^2 = 15.8$, d.f. 3, $P < .01$, sig.).

by an inspection of the frequency table. For both "Highly Effective" and "Moderately Effective" reading strategies, the observed frequencies for Group A were higher than the expected frequencies whereas in Group B the observed frequencies were lower than the expected frequencies. For "Some Effective" and "Ineffective" reading strategies for Group A, the observed frequencies were lower than the expected frequencies while in Group B the observed frequencies were higher than the expected frequencies for these categories. From these findings it is possible to state that Group A children had developed more effective reading strategies than Group B and that this effect was directly attributable to the language-based reading approach to which these children were exposed.

Group A children were exposed to a language-based reading approach and were encouraged from the initial stages of learning to read to make meaning their goal. Group B children, on the other hand, were exposed to a conventional reading approach which emphasized skill development and concentrated upon phonic analysis and synthesis and so meaning identification was inhibited. Group A children learned to identify words from context, to use initial sounds and to use prediction in the first part of sentences to identify ongoing meaning.

Reading strategies developed as the child gained experience with written material. Children in Group A were encouraged from the beginning to view reading as a natural extension of their oral language. With the initial use of a language-experience reading approach in which speech was matched to print, children were able to immediately use the three language systems, grapho-phonic, syntactic and semantic, simultaneously and interdependently,[73] when reading. Natural language patterns were also experienced by these young readers when they progressed to reading books.

The language-based reading approach outlined in this research ensured that learning to read took place in the context of language. Experience with print allowed children to build up categories for letters, words and meaning by experience with them in meaningful sentences. Direct comparisons were made between letters in words and words in meaningful sentences, right from the beginning and children began to develop their own system of rules for processing print. Finally this system of rules each child developed manifested itself in the effectiveness of reading strategies used to process written language.

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[73] K. Goodman, "Psycholinguistic Universals in the Reading Process", Psycholinguistics and Reading, ed. Frank Smith (New York : Holt, Rinehart and Winston, Inc., 1973), p.25.

CHAPTER VI

SYNOPSIS, CONCLUSIONS, LIMITATIONS, RECOMMENDATIONS AND IMPLICATIONS

Synopsis

A successful beginning reading approach lays the foundations for success in the learning to read process. This research is based upon the assumption that reading is a language-based cognitive process. The beginning reader is an efficient language user. In first grade the young child knows the three interrelated language systems : phonological, syntactic and semantic. What the child must learn to do is match these three systems with language in print. This research investigated the problem of the effect a language-based reading approach had upon the reading strategies of first grade children.

The acceptance of the assumption that reading is a language-based cognitive process, necessitated the choice of a reading approach which was language-based and took into account the background and experience of each child.

In this language-based approach, children initially read their own language with skills being developed within the context of reading. Reading material was carefully selected so that the language patterns matched, or were closely related to the natural language patterns of these young children. Stilted language found in Basal Readers was avoided. The criteria set down for choice of reading material was simply to ask if children would recognize the context as language. The children's interests were also accounted for in the selected reading material.

Kenneth Goodman was co-author of the Scott Foresman Series Reading Unlimited, from which early books were selected for use. To establish that these books contained acceptable language patterns, trained observers assessed each book in the series. Children were observed in their use of reading strategies as they read and books were evaluated in terms of the facility with which children were able to construct meaning from the text. Reading Unlimited reading materials were -

> ... based on the notion that reading should be taught as an extension of the language children already speak and understand when they enter school.[1]

Preparation of the twenty-four Breakthrough to Literacy books entailed the fulfilment of certain conditions. The language and interests of the five year old were accounted for and the sentence structure in these books was normal. That is, the reading material was planned so that it looked and sounded like natural language.[2] Reading Rigby[3] authors also maintain that natural language patterns and the interests of young children were the goals in the preparation of the early books.

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[1] Landon H. Risteen, "Look At That Fool Rabbit", Research and Learning to Read (Scott Foresman and Company, 1970) (mimeographed), p.2.

Children exposed to the conventional reading approach read basal reading books, associated supplementary readers and library books. The content of these books reinforced skill development rather than being concerned with language.

The two northern suburban schools involved in this investigation were comparable in terms of size, building construction, organization, teacher placement and departmental policy. The population of these two schools was drawn from a community considered to be of lower to lower-middle socio-economic status.

The three teachers who used the conventional reading approach had taught beginning readers in this way in the previous year. These teachers were competent in their application of the conventional reading approach. The language-based reading approach was new to the three teachers in the experimental classes. For this reason, the language-based reading approach was planned in consultation with the investigator.

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[2] David Mackay, Brian Thompson and Pamela Schaub, Breakthrough to Literacy : Teacher's Manual (London : Longman Group Ltd, 1970), pp.142-143.

[3] Gregory Blaxell and Gordon Winch, Using Reading Rigby (Melbourne : Dominion Press, 1977), p.25.

Three first grade classes in each school were exposed to either the language-based or conventional reading approach. Children in these classes were admitted to school in the year they turned six. At the conclusion of the first year at school, twenty children were randomly selected for testing from each of the experimental and control classes. I.Q. was established for each of these children.

Standardized reading tests were administered to these children and their oral reading was audio-taped so that miscues could be analyzed. These data were then subjected to various statistical procedures, both parametric and non-parametric, so that differences between the two groups could be evaluated.

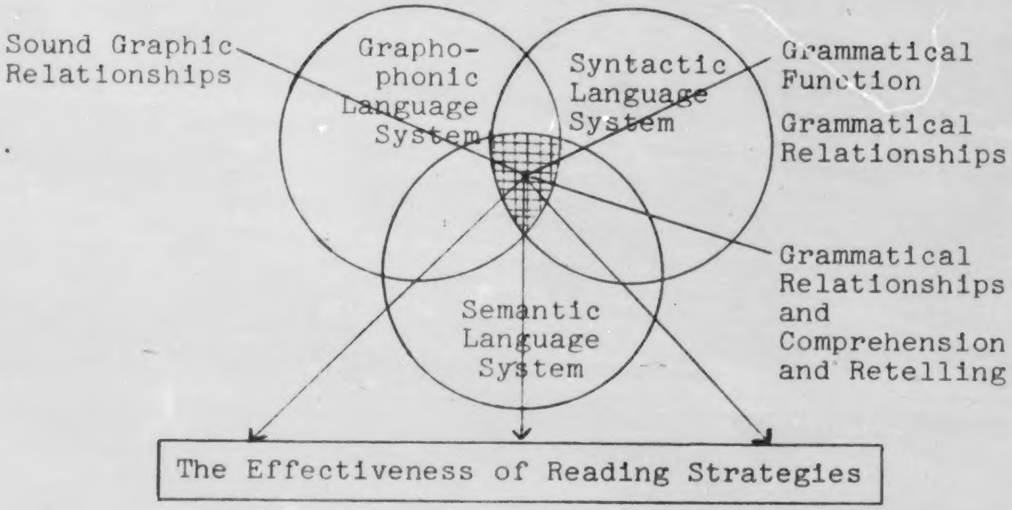
Scores from the three tests used to evaluate word recognition, comprehension and accuracy, the three components of reading achievement studied in this research, were subjected to statistical analyses. To evaluate the effect the beginning reading approach had upon attitude to and concept of reading, statistical analyses were used. I.Q. was the covariate in these analyses.

The Goodman and Burke "Reading Miscue Analysis" was the procedure followed when audio-taped oral reading was evaluated. Reading tests provided very little information as to how the child was using the grapho-phonic, syntactic and semantic language systems. To assess reading strategies' development, it was necessary to study how these three language systems were being used by each child. Miscue analysis provided the research tool which allowed the investigator to evaluate each miscue a child made in terms of sound/graphic relationships, grammatical function, grammatical relationships and comprehension. Children were also required to retell the story read. The Comprehension and Retelling scores were associated to produce an evaluation as to the effectiveness of each child's reading strategies.

The following Figure 24 illustrates how "Reading Miscue Analysis" evaluates the reader's use of the three cue systems of language. This evaluation then allows the investigator to determine the effectiveness of the reading strategies being used by the child.

Figure 24

The Goodman and Burke "Reading Miscue Analysis" Procedure Evaluates the Reader's Use of the Three Language Systems in the Effectiveness of Reading Strategies


Sound Graphic Relationships
Grapho-phonic Language System
Syntactic Language System
Grammatical Function
Grammatical Relationships
Grammatical Relationships and Comprehension and Retelling
Semantic Language System
The Effectiveness of Reading Strategies

The above Figure 24 illustrates that reading is a process, an active on going process which involves the three language systems. If any one of these systems becomes isolated from the whole, then efficient reading is inhibited.

During oral reading, many correct responses are made, but when a reader produces exactly the required response, there is no way of evaluating the procedure used to achieve that response. Miscues, on the other hand, are observed responses which deviate from the expected response during oral reading. These miscues provide the investigator with information as to the process by which the reader arrived at his decision. During oral reading, one child substituted the word "kangaroo" for "Kool-Aid", which indicated that graphic cues were in dominant use and so meaning acquisition was inhibited.

Two children substituted "cuddly" for "cute" when reading about baby ducks and so indicated their use of sound/graphic cues in the production of the initial sound/graphic relationship. Syntactic and semantic language cues were also applied effectively so the miscue was considered a good one because meaning was retained for each child.

"Reading Miscue Analysis" was the evaluation procedure adopted because unexpected responses reflect the strategies [illegible] reader adopts when reading unfamiliar or difficult material. Children were expected to react to reading material without assistance and with knowledge that they would be required to retell the story at the conclusion of the oral reading.

Miscues were recorded as substitution, omission, insertion and correction. Non-words and partial words were also recorded. Miscues were then analyzed in terms of the seven questions set down by Goodman and Burke.[4] The "RMI Reader Profile"[5] was projected and from these analyses, differences were observed between the groups in the effectiveness of their use of reading strategies. Miscues made by children exposed to the language-based approach, generally reflected a more effective use of the three language systems when these children read orally from unfamiliar material.

Conclusions

Evidence generated by this research allowed the investigator to conclude that the children exposed to a language-based reading approach used reading strategies more effectively than did children exposed to the conventional reading approach by the end of the first year at school. Rather than make judgments in relation to one approach producing results that were significantly better than another, differences in these children's use of their language systems as a result of the reading approach to which they were exposed, was evaluated.

The final percentage scores projected onto the "RMI Reader Profile"[6] was an evaluation of the child's use of reading strategies. These results were subjected to non-parametric statistical analyses to evaluate differences between the groups as to the effect of the beginning reading approaches in establishing control over the use of effective reading strategies.

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[4] See Appendix G. [5] See Appendix K. [6] See Appendix K.

The following conclusions will be discussed within the following framework -

1. General conclusions related to both the experimental and control groups.
2. Conclusions related to reading achievement, attitude to and concept of reading for each group.
3. Conclusions based on Reading Miscue Analysis findings for each group.

General Conclusions Related to the Experimental and Control Groups

1. All children wanted to learn to read.
2. All children realized that symbols (squiggles) on a page represented something to be read.
3. All children made miscues while reading.
4. The quality rather than the quantity of miscues provided more information for the investigator.
5. All children made sound/symbol associations when reading.
6. All children used their syntactical knowledge when reading.

7. Regardless of the number of miscues made, children were able to identify meaning as they read orally.
8. All children used reading strategies when reading.

The above points are expanded below -

The beginning readers involved in this investigation wanted to learn to read. They saw the activity as being important and this attitude was probably projected firstly by the family and reinforced by enthusiastic teachers. These young children were excited about reading and this excitement was expressed in their involvement in classroom reading as well as library activities.

The way in which attention was directed to the printed page and such behaviour as finger and head pointing indicated that these children were aware that symbols were to be read. Simply the difference noted in voice production and the scrutiny of a page of print when children were asked to read, indicated that they were consciously involved in processing print.

Without exception, children from the experimental and control groups made miscues when reading orally. The quantity of miscues provided very little insight into how the language systems were being used whereas the quality of miscue indicated the language systems in process when the miscue was made.

Children exposed to either the language-based approach or the conventional reading approach were aware of sound/ symbol associations when reading. The grapho-phonic language system operated with children using the initial parts of words more often than the medial or final parts. No difference was observed between the groups as a result of different approaches to learning sound/symbol associations. For the language-based reading approach sound/symbol associations were planned for and learned within the context of reading whereas for the conventional approach there was a definite and often separate skill development lesson when children were taught to make sound/symbol associations.

Many of the miscues made indicated the child's use of his syntactic language system. Children were very much aware of the grammar of their language when reading. This was observed in the substitution of names with names they had previously encountered, in the substitution of words from the same part of speech as the text word and non-words often had the same grammatical function as the text word. Examples may be seen as follows -

Name	Mark said to Colin	(text)
Substitution :	Jack said to David	(Reader 20 Group B)
Noun and Name	He saw Mr Burke bring the mail	(text)
Substitution :	He saw Mr Barker bring the milk	(Reader 7 Group B)
Verb	He wanted to sleep in a tent	(text)
Substitution :	He went to sleep in a tent	(Reader 9 Group B)
Present Participle	He saw dark smoke coming out of the window of Mrs Miller's house	(text)
Substitution :	He saw dark smoke going out of the window of Mrs Miller's house	(Reader 7 Group B)
Adjective	"You are a smart father"	(text)
Substitution :	"You are a sweet father"	(Reader 10 Group A)

Non-word	The boys ate sandwiches	(text)
Substitution :	The boys ate samches	(Reader 16 Group A)

Even children who made many miscues while reading orally were able to retell the story with some degree of success. In Group A, reader three made forty-one miscues and his retelling score was 40 percent while in Group B, reader two made thirty-eight miscues and his retelling score was 40 percent. The number of miscues did not always effect the retelling score. Some children were very concerned with correctness when reading rather than getting meaning.

Children from both Groups A and B used reading strategies with some degree of success. Three children, one from Group A and two from Group B, were considered to have ineffective reading strategies. Even these children (reader five in Group A and readers five and seventeen in Group B) were using their language systems to some extent. Miscues made by these children indicated that they used the Sound/Graphic Relationships rather than Grammatical and Semantic Relationships and so meaning was inhibited.

Conclusions Related to Reading Achievement, Attitude to and Concept of Reading

Reading achievement. Three components of reading achievement, word recognition, comprehension and accuracy were studied. Conclusions reached were as follows -

1. Children exposed to the language-based reading approach achieved in word recognition a significantly higher level than those in the conventional reading approach.

2. There was no significant difference in comprehension between children exposed to language-based or conventional approaches.
3. Accuracy when reading was at about the same level for children in both reading approaches.

These three conclusions are expanded as follows -

A reason for the significant difference in word recognition was that children exposed to the language-based approach had experienced a more extensive selection of words which expanded their sight vocabulary. The controlled vocabulary presented to children using basal readers in the conventional approach inhibited their acquisition of an extensive sight vocabulary.

Attitude to reading. No difference was noted between the effect the language-based and conventional reading approaches had upon the child's attitude to reading.

Concept of reading. The language-based and conventional reading approaches produced in children a similar concept of reading.

Conclusions Based on Reading Miscue Analysis

From the "RMI Reader Profiles"[7] conclusions were reached in relation to the reader's use of Sound/Graphic

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[7] See Appendix K.

Relationships, Grammatical Function, Grammatical Relationships, Comprehension and Retelling and Reading Strategies.

Sound/Graphic Relationships. The following conclusions are drawn -

1. Language-based and conventional reading approaches produced readers who could use the grapho-phonic language system when confronted by a problem when reading orally.
2. No difference was noted between children exposed to these two different reading approaches in their use of sound and graphic relationships.
3. Children exposed to these reading approaches used initial sound/graphic relationships rather than medial or final relationships.

The reasons for these conclusions are as follows -

Children were aware of the sounds in language before beginning reading. The reading approaches to which these children were exposed allowed them to make sound/graphic associations whether it was in the skill development, drill type procedure or whether children developed this ability by experience with print and sound/graphic association being presented within the context of reading.

Grammatical Function. The conclusions reached are -

1. Grammaticality operated for children regardless of the approach to which they were exposed.
2. Children exposed to the language-based approach pro-

duced miscues which had the same Grammatical Function more often than the conventional approach children.

3. The language-based reading approach produced readers who made better use of the syntactic language system when reading.

These three points are expanded in the following -

Because children exposed to the language-based reading approach initially read their own language patterns and then read material that sounded like language, better use was made of the syntactic language system when reading. Conversely, the children exposed to the conventional reading approach were precluded from associating their own language with print because of the nature of the basal reading material. The use of their syntactic language system was therefore inhibited.

Children exposed to the language-based reading approach were encouraged to make meaning their goal when reading. In the initial stages, these children read their own language patterns so meaning acquisition was immediate. Later when books were introduced, children were encouraged to use context to recognize words, to predict and to take risks when reading. Children were also encouraged to think about meaning as they read by asking themselves if what they were reading made sense. Miscues that these children made indicated that they were more often grammatically and semantically acceptable and that they did not make drastic meaning changes.

On the other hand, children exposed to the conventional reading approach were required to sound out any words not recognized by sight and to ensure that correctness in word production was their goal. These children produced miscues which were more often unacceptable both grammatically and semantically and which also affected meaning change.

Grammatical Relationships. Conclusions drawn are as follows -

1. The use of Grammatical Relationships were evident in miscues produced by children exposed to either the language-based or conventional reading approach.
2. The children exposed to the language-based approach had greater strength in Grammatical Relationships than the conventional approach children.
3. The conventional reading approach produced readers who showed a greater weakness in their use of Grammatical Relationships.

A discussion of these conclusions follows -

Even though both approaches developed in children the ability to use Grammatical Relationships when reading, the children exposed to the language-based approach produced miscues which were more often grammatically acceptable and effected less meaning change than children in the conventional reading approach. The language-based reading approach encouraged children to use prediction when reading and the "cloze" procedure was used as a teaching device. That is, children were encouraged to use their knowledge of grammar and context to identify words as they read.

The reading material used in the language-based reading approach allowed children to make educated guesses because it was predictable in terms of their own language.

Children exposed to the conventional reading approach were more intent on correct oral reading rather than reading for meaning. Early basal readers contain stilted language which inhibits the child's associating the book language with oral language. This means that the child's guesses were often influenced by words he has previously learned rather than meaning acquisition. As a result the child made less efficient use of his language systems, particularly the syntactic and semantic systems.

Comprehension and Retelling. The conclusions are as follows -

1. The two reading approaches produced readers whose miscues indicated a degree of comprehension when reading orally.
2. The language-based reading approach produced readers with a higher "no loss" of comprehension than did the conventional approach.
3. The conventional reading approach produced readers who had a "loss" of comprehension in excess of the language-based reading approach readers.
4. Retelling was more efficiently executed by children exposed to a language-based reading approach.

These four points are expanded as follows -

Because meaning acquisition was the basis for the language-based reading approach, children were able to comprehend at a higher level than those exposed to a conventional reading approach. Children in the language-based reading approach were encouraged to think about what they were reading whereas the conventional approach children were encouraged to think about how they were reading, that is, correct production was the goal for the latter children.

The reader's use of reading strategies. Conclusions drawn are based on the statistical analysis of data. These are as follows -

1. Ineffective reading strategies were evident in children exposed to either the language-based or conventional reading approach.
2. The language-based reading approach produced readers with more effective reading strategies than did the conventional reading approach.
3. Reading strategies develop to a degree, regardless of the approach adopted.
4. Reading strategies manifest themselves in the degree of meaning a child acquires from print.

These four points are developed as follows -

Children exposed to the language-based reading approach produced miscues which were corrected more often, were more grammatically and semantically acceptable and affected less meaning change than those produced by the conventional reading approach children. As a consequence, retelling scores for the experimental children were higher and this in turn produced for these children more effective reading strategies. The language-based reading approach provided a means by which these children were able to use the three language systems simultaneously and interdependently.[8]

Limitations

Conclusions presented must be accepted tentatively for a number of reasons. In any educational research, particular difficulty is experienced with the control of variables, especially the teacher variable. Even though the teacher variable was controlled as much as possible, day to day teaching was impossible to monitor. However, both the experimental and control group teachers indicated that they had adhered to the philosophy of either the language-based or conventional reading approaches.

Standardized tests were administered to evaluate word recognition, comprehension and accuracy. However, for attitude to and concept of reading questionnaire techniques were adopted and associated problems were experienced. Questionnaires used for attitude to and concept of reading are still in the developmental stages. Results on the questionnaire indicated that there was no significant difference between the groups in attitude to or concept of reading.

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[8] K. Goodman, "Psycholinguistic Universals in the Reading Process", Psycholinguistics and Reading, ed. Frank Smith (New York : Holt, Rinehart and Winston Inc., 1973), p.25.

When children first came to school their expectations of school were centred in learning to read. First grade children are highly motivated to learn to read because of family, school and peer influence. Children live in a literate society, so there are also social pressures for them to learn to read. As a result attitudes are formulated because of environmental factors rather than the approach to reading adopted by the teacher though the school environment must reinforce attitude development.

Adults experience difficulty when asked to present their concept of the reading process. Five and six year olds therefore experience even greater problems in the synthesis of their concept of reading. Children see parents, teachers and friends reading, but the observable behaviour is minimal and does not really tell them about the reading process. It remains a mystery even after the beginning reading process commences for the child.

Downing[9] suggested that young beginning readers fail to understand the purpose of written language or what happens when a person reads. Abstract linguistic terminology used by teachers also presents conceptual problems for the child. The beginning readers do not really know what a word or sentence is. For these reasons, the child's concept of reading would be best evaluated by more direct techniques such as observation as the child actually manipulates his language.[10]

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[9] John Downing, "Children's Concepts of Language in Learning to Read", Educational Research (February 1970), p.224.

The Reading Miscue Inventory[11] as a research tool places limitations on this research. One of the problems found is that the analyses are made exclusively for miscues. Correct responses are not considered because they furnish the investigator with very little information about the reading process. However, findings related to miscue analysis provided information about how the three language systems operated for each child and within the limits of "Reading Miscue Analysis" as a research tool, confidence is expressed in the conclusions reached. The use of "Reading Miscue Analysis" certainly developed, for the investigator, a better understanding of the beginning reading process as well as how this process develops for children exposed to different reading approaches.

Recommendations for Further Research

This investigation indicated that there is a need for further research into the "Reading Miscue Analysis" procedure so that this valuable evaluation technique may be refined. Further research is required so that reliability and validity of this procedure may be established.

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[10] Materials from the Breakthrough to Literacy reading programme would be suitable for this procedure.

[11] Yetta Goodman and Carolyn L. Burke, Reading Miscue Inventory Manual : Procedures for Diagnosis and Evaluation (New York : MacMillan Publishing Co., Inc., 1972).

A longitudinal study in which the language-based reading approach is extended into a language-based reading programme is also suggested as a worthwhile investigation.

A follow-up study of the language-based reading approach extended into the second and third years for children who had not commenced reading at the conclusion of year one is also recommended for further research.

The gifted reader is a neglected area of research. An investigation which focuses on the development of gifted readers' reading strategies as they are exposed to a language-based reading approach is another possible area of research.

Implications for Beginning Reading Instruction

The philosophy of a language-based reading approach is inherent in the following implications -

1. An understanding of the reading process is essential for teacher and child.
2. Each first grade child has a well developed oral language system which must be utilized in the beginning reading process.
3. Initial reading instruction which utilizes the child's oral language allows the three interrelated language systems to operate simultaneously and interdepend-

ently.[12]

4. Children are able to make sound/graphic associations through experience with print. If these experiences are organized to encompass the sound/graphic associations of the English language, then drill lessons in isolated skill development are unnecessary.
5. The learning to read process should, from the beginning, involve -
   a. making predictions;
   b. taking risks by guessing;
   c. using context;
   d. retelling stories read, to clarify meaning.
6. Skill development is best accomplished within the context of reading. Isolated drills present language in a fragmented manner and their application to reading often inhibits the acquisition of meaning.
7. Reading to children allows them to hear the language of books and prepares them to relate to it when reading.
8. Reading material which has natural language patterns allows the child to use his knowledge of grammar when reading.
9. Reading material which takes into account the conceptual load allows the child to go directly to meaning from the beginning.

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[12] K. Goodman, p.25.

10. "Reading Miscue Analysis" is a useful procedure for evaluating the beginning reading process.

The language-based reading approach produced readers with effective reading strategies. These children saw relevancy in reading because emphasis was placed upon something they knew well, their own language. The progress of these children in their second year will be followed with interest.

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APPENDIX A

VOCABULARY DEVELOPED BY CHILDREN EXPOSED TO LANGUAGE-BASED AND CONVENTIONAL READING APPROACHES

Basal Vocabulary, June 1977

Group A

JANET AND JOHN, "HERE WE GO".

Janet
and
little
down
one
three
can
John
see
dog
up
kitten
play
horse
come
the
run
aeroplane
I
go
ride
look
boats
here
my
two
jump

KATHY AND MARK

Kathy
here
ride
me
is
ball
rabbit
run
Mark
jump
see
the
Socks
it
one
and
I
look
birds
up
in
two
come
can
go
squirrels
down
no
three

LANGUAGE-BASED APPROACH

Sample of Words from Experimental Class in June 1977

Group B

Class 1

bricks
Choco
mother
Sussie
long
had
Snowball
baby
sausage
Mr Bell
we
pigeon
little
food
helmet
the
bird
go
dog
coat

Class 2

garden
water
seeds
fireman
axe
Mr Bell
white
dough
machine
platypus
run
burrow
rain
scared
door
Mr Dimmer
Pizza
showed
school
cress
we
helmet
He
Fluffy
quiet-room
Hut
Mr Gardner
swim
wet
waterfall
monster
outside
cat
shop
big
hot

Class 3

kitten
black
long
dad
die
finished
name
uniform
tell
white
fluffy
water
four
came
today
car
brought
swimming
weeds
fur
ears
school
fish
aquarium
eating

APPENDIX B

QUESTIONNAIRE IN RELATION TO RESEARCH QUESTION TWO

1. How much do you like reading?

1	2	3	4	5
not at all	a little	some	quite a lot	very much

2. How much do you like reading lessons at school?

1	2	3	4	5
not at all	a little	some	quite a lot	very much

3. How much do you read by yourself at school?

1	2	3	4	5
not at all	a little	some	quite a lot	very much

4. How much do you like to read at home with mum or dad?

1	2	3	4	5
not at all	a little	some	quite a lot	very much

5. How much do you read by yourself at home?

1	2	3	4	5
not at all	a little	some	quite a lot	very much

TOTAL : 25

APPENDIX C

THE CONVENTIONAL READING APPROACH
TEACHERS' READING PROGRAMME
(CONDENSED)

Month	Auditory Discrimination	Visual Discrimination
Feb-Mar	1. Name calling.	1. Matching pictures of objects.
	2. Listening to tone.	2. Matching colour.
April	3. Listening to number of sounds.	3. Threading beads to colour cards.
	4. Listening to stories.	4. Jigsaw puzzles.
	5. Listening to directions.	5. Recognizing likenesses.
May	6. Letterman stories - introduced with pictures.	6. Matching labels to objects.
	7. Rhyming activities.	7. Matching phrases on nursery rhymes.
	8. Playway blending.	8. Word recognition, words from "Janet and John".
	9. Sounding games, "I Spy".	9. Sentence reading, "Janet and John".
	10. Recognizing different initial sounds.	

Month	Phonics	Comprehension	Reading
July	1. Single sounds.	1. Read and draw activities.	1. Janet and John Kathy and Mark Young Australian Readers
	2. Two letter blends.	2. Word picture matching.	2. Phrase reading.
August	3. Three letter blends.	3. Choosing correct word to fit sentence.	3. Activity reading.
	4. Family words.	4. Yes or no activity.	Useful aids
	5. Linking br, tr, gr.	5. Word completion.	1. Read and draw cards.
	6. Adding five.		2. Two and three letter blend books.
	7. Double consonants.		3. Three letter blend games.
			4. Family word charts.
Sept.	1. Single sounds.	As above.	Young Australian Readers
Oct.	2. Digraphs.		Kathy and Mark Series
	3. Blends.		Janet and John Series.
			Basic Vocabulary
			Revision from previous books.

APPENDIX D

THE LANGUAGE-BASED READING APPROACH
TEACHERS' READING PROGRAMME
(CONDENSED)

Month	Language Experiences	Related Activities
Feb-Mar	Building a Brick Wall	1. Language development. Use of tape recorder.
		2. Oral language recorded.
	Four Little Pigeons	3. Reading activities. Children read individual and class books.
April	Sussie The Sausage Dog	4. Word recognition within the context of reading.
	Mr Bell, The Fireman	5. Word games.
May	The Grocery Shop The Pizza Hut	6. Visual discrimination. Recognising different words in context.
Holiday period	Each child prepares an experience story with parents.	7. Auditory discrimination. Recognising words and letters which sound alike.
		8. Each child commences a "word bank".
June	The Platypus (Film)	9. Class, group and individual books prepared.
		10. Library activities related to the experience.
	A Picnic in the Park	11. Literature programme.
		12. Discussion of stories read to reinforce meaning.

Month	Language Experience	Reading Materials	Related Activities
July	Making Cakes	1. Reading individual books.	1. Cloze activities.
	A Cold Day	2. Selection from - Breakthrough to Literacy Reading Rigby Linkup Reading Unlimited Language Linker Library books	2. Word games with word bank.
Sept.	The Garden		3. Library activities.
	Springtime		4. Retelling stories.
	The Zoo		5. Tape record personal experience stories.
Oct.	The Circus	3. Reading Class Book.	6. S.S.R.
	Building	4. Group books for audience and individual reading.	Sustained silent reading each day for an increasingly prolonged period of time.
Nov.	A Party		
	Making A Puppet (or own choice)		7. Sharing reading experiences.
Dec.	Christmas holidays.		

The last page of Appendix D was removed due to poor reproducibility.

5

APPENDIX E

ORAL READING SELECTIONS FOLLOWED BY RETELLING FORMAT

SPACE PET

As far as I know there has

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at the cost of some birdseed.

Yetta Goodman and Carolyn Burke, Reading Miscue Inventory Readings for Taping Procedure for Diagnosis and Evaluation (New York : The Macmillan Company, 1972), pp.25-29.

GUIDE QUESTIONS TO STORY RETELLING

SPACE PET

Unaided Retelling

Say : "After you read this story, I want you to tell me as much of the story as you can remember."

Turn the reading material face down.

Say : "Tell me everything you can remember about the story, 'Space Pet'."

Do not interrupt or interject during the retelling.

Character Development (40 points)

Author	likes pets	6
Sven Olsen	likes pets	6
Claribel	small yellow canary sings noisy	12
Jack Duncan	cook and doctor	6
Jim	engineer	6
Another crew member		4
	Total :	40

Events

1.	Author hears and sees Claribel for the first time while he is working in his office and the space station.	6
2.	Claribel becomes everyone's pet. Owned by Sven.	6
3.	The crew members come to breakfast and feel sleepy.	6
4.	Claribel has passed out.	6
5.	Claribel appears dead. She is given oxygen and revives.	6
6.	Author suggests there is something wrong with the air.	6
7.	Jim checks the warning systems.	6
8.	Everyone gets oxygen.	6
9.	Jim returns to explain that the air lines have frozen up.	6
10.	Claribel has saved them all.	6
		60

Character Development : 40 points
Events : 60 points

Total : 100 points

Aided Retelling

This score is included in the above.

1. Tell me more about the story.
2. Tell about Claribel.
3. Tell about the crew at breakfast.
4. Can you tell your favourite part of the story?
5. Describe Claribel.
6. Could this story be true?

A DAY AT HOME

One day Bob Watson was sick.

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stayed home from school.

Yetta Goodman and Carolyn Burke, Reading Miscue Inventory Readings for Taping Procedure for Diagnosis and Evaluation (New York : The Macmillan Company, 1972), pp.1-2.

GUIDE QUESTIONS TO STORY RETELLING

A DAY AT HOME

Unaided Retelling

Say : "After you read this story, I want you to tell me as much of the story as you can remember."

Turn the reading material face down.

Say : "Tell me everything you can remember about the story, 'A Day At Home'."

Do not interrupt or interject during the retelling.

Character Development (40 points)

Bob Watson	Sick - stayed home from school	5
	brave	5
	quick thinking	5
	sensible	5
Bob's mother		5
Mrs Miller	Bob's neighbour	5
	glad about Bob's actions	
Mr Burke	mail man	5
Mr Goodman	the milk man	5
	Total :	40

Events (60 points)

1.	Bob Watson was sick.	6
2.	He stayed home from school.	6
3.	He was looking out the window.	6
4.	Saw smoke coming out of the window.	6
5.	He called his mother.	6
6.	His mother called the fire brigade.	6
7.	Firemen arrived.	6
8.	Sprayed water on the fire.	6
9.	The fire truck went away.	6
10.	Bob saw his mother talking to Mrs Miller.	6
	Total :	60

Character Development : 40 points
Events : 60 points

Total : 100 points

Aided Retelling

This score is included in the above.

1. Tell me more about the story.
2. Why did Bob stay home from school.
3. Why did Bob call his mother?
4. Where was the smoke coming from?
5. Who put the fire out?
6. How did Bob feel?

THE LITTLE DUCKS' SWIMMING TUB

Debby and Duffy Duck had five baby ducks

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"Now our babies have their own swimming tub"

Ira E. Haron, "The Little Ducks' Swimming Tub", Study Book Level 4 (Glenview, Illinois : Scott, Foresman and Company, 1971), pp.12-13.

E-10

GUIDE QUESTIONS TO STORY RETELLING

THE LITTLE DUCKS' SWIMMING TUB

Unaided Retelling

Say : "After you read this story, I want you to tell me as much of the story as you can remember."

Turn the reading material face down.

Say : "Tell me everything you can remember about the story, 'The Little Ducks' Swimming Tub'."

Do not interrupt or interject during the retelling.

Character Development (40 points)

Debby	5	lived in a barn	5
Duffy - smart	5	had five baby ducks	5
		good parent ducks	5
Rudy	1	yellow and fluffy	2
Gus	1	very cute	2
Burt	1	feathers as soft as fur	2
Ruby	1	liked swimming as playing	2
Durwood	1	liked to have fun	2
	15		25
			15
		Total :	40

Events (60 points)

1.	Debby and Duffy had five baby ducks	5
2.	The five baby ducks wanted to go swimming in the pond.	5
3.	It was too cold outside.	5
4.	Thought to make a pool in the barn.	5
5.	Hunted around the barn.	5
6.	They found a huge tub.	5
7.	Debby got the babies into their swim suits.	5
8.	Duffy got the tub ready.	5
9.	One by one the little ducks jumped in.	5
10.	They had lots of fun swimming and playing.	5
		50

Additional Information (10 points)

Examples :

1.	The parents loved their ducklings.	2
2.	The ducklings were beautiful.	2
3.	Debby and Duffy liked to see their babies happy.	2
4.	Duffy was proud of Duffy.	2
5.	It was a very happy story about a family enjoying doing things together.	2
	Total :	60

Character Development : 40 points
Events : 50 points
Additional Information : 10 points

Total : 100 points

Aided Retelling

This score is included in the above.

1. Tell me more about Debby and Duffy.
2. Where did they live?
3. What happened next?
4. Why do you think Debby and Duffy did that?
5. How did the ducklings do that?
6. Tell me more about the ducklings.
7. Tell me what the whole story was about in just a few words.
8. Was this a real story? Why?
9. Was this a happy or a sad story? Why?
10. Did you like this story? Why?

DAN AND CARL MAKE TENTS

One day Dan and Carl made a tent in the yard

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They were asleep in their tent on the porch.

Charlemae Rollins, Tents (Glenview, Illinois : Scott, Foresman and Company, 1971).

GUIDE QUESTIONS TO STORY RETELLING

DAN AND CARL MAKE TENTS

Unaided Retelling

Say : "After you read this story, I want you to tell me as much of the story as you can remember."

Turn the reading material face down.

Say : "Tell me everything you can remember about the story, 'Dan and Carl Make Tents'."

Do not interrupt or interject during the retelling.

Character Development (40 points)

Dan	5	two boys and brothers	5
Carl	5	liked adventures	2
		liked sleeping out	2
		liked doing things together	3
		put their tent on the porch when it rained (sensible)	5
		were good friends	3
their dad	5	liked the boys to enjoy themselves	2
		was a nice father	1
		understood about what boys like to do	1
		gave permission for the boys to sleep in a tent	1
	15		25

Total : 40 points

Events (60 points)

1.	Dan and Carl made a tent in the yard.	4
2.	Put a blanket over a rope.	4
3.	They wanted to sleep in the tent.	3
4.	Dad said they could.	3
5.	Had blankets, sandwiches and jar of Kool-Aid.	6
6.	It got dark.	4
7.	They ate.	2
8.	They went to sleep.	2
9.	It rained.	2
10.	They woke up.	4

11.	Carl grabbed sandwiches and Kool-Aid.	6
12.	Dan grabbed the blankets.	4
13.	They ran to the porch.	4
14.	They set up their tent on the porch.	4
15.	They ate again.	4
16.	They went to sleep.	4
		60

Character Development : 40 points
Events : 60 points

Total : 100 points

Aided Retelling

This score is included in the above.

1. Tell me more about the story.
2. Why did the boys decided to do this?
3. What did they take with them?
4. How did they make a tent?
5. Describe the boys.
6. Can you tell me anything else about them?
7. What happened when it rained?
8. What happened next?
9. Did you enjoy this story?
10. What does this story remind you of?

GRAN'S BIRTHDAY

One day
Jim's daddy came home from his work

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from Gran's big box.

Jessie Reid, Joan Low and Ken Turnbull, Link-up, Buildup Book (Edinburgh : Hoomes McDougall Ltd, 1973).

E-17

GUIDE QUESTIONS TO STORY RETELLING

GRAN'S BIRTHDAY

Unaided Retelling

Say : "After you read this story, I want you to tell me as much of the story as you can remember."

Turn the reading material face down.

Say : "Tell me everything you can remember about the story, 'Gran's Birthday'."

Do not interrupt or interject during the retelling.

Character Development (40 points)

Jim	5	liked his Gran	2
		made her a card and present	2
		a thoughtful boy	2
Jim's Daddy	5	liked Gran, Dad's mother (because he bought her a birthday present)	2
		liked surprises	2
Gran	5	nice to visit	2
		old	2
		had a birthday	2
		liked Jim and Jim's daddy (her son)	3
		liked chocolates	2
		liked getting presents	2
		shared her chocolates	2
	15		25

Total : 40 points

Events (60 points)

1. Jim's daddy came home from work with a big box. 4
2. Jim had made a present and card. 4
3. Jim had posted the card in the letter box. 4
4. Jim and his daddy went to Gran's house with the present. 4
5. They got on the bus. 4
6. Went along Hill Street. 4
7. Went past the school, paper shop, big shops. 4

8.	Stopped in Park Street.	4
9.	Stopped at Gran's house.	4
10.	Saw Gran.	4
11.	Wished her happy birthday and gave her the presents.	4
12.	Gran unwrapped the presents.	4
13.	Gran liked her presents.	4
14.	Gran made tea for daddy.	4
15.	They all had chocolates.	4
	Total :	60

Character Development : 40 points
Events : 60 points

Total : 100 points

Aided Retelling

This score is included in the above.

1. Tell me more about the story.
2. Tell me about the bus ride to Gran's house.
3. Why did Jim and his daddy go to Gran's house?
4. What did they take? Why?
5. Tell about the surprise.
6. Tell me in a few words about the story.
7. Describe Gran opening the presents.
8. What did Jim do at Gran's?
9. How does this story make you feel?
10. Why would Jim and daddy like to go to Gran's house?

A STORY ABOUT A MOUSE

I am Colin.

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Can you sing Colin's song?

Dorothy M. Glynn, "A Story About A Mouse", Dominoes Extras (Edinburgh : Oliver and Boyd, 1974).

GUIDE QUESTIONS TO STORY RETELLING

A STORY ABOUT A MOUSE

Unaided Retelling

Say : "After you read this story, I want you to tell me as much of the story as you can remember."

Turn the reading material face down.

Say : "Tell me everything you can remember about the story 'A Story About A Mouse'."

Do not interrupt or interject during the retelling.

Character Development (40 points)

Colin	kind to his pet mouse	8
	loves his pet mouse	4
	cares for his pet mouse	4
a pet mouse		4
Mark) Sally) the David) children Kay)	helped Colin	20
	Total :	40

Events (60 points)

1.	Colin had a pet mouse.	5
2.	He fed the mouse every day.	5
3.	He took the mouse to school.	5
4.	Marked helped Colin look for his mouse.	5
5.	They looked in the brick box.	5
6.	Sally ___________	5
7.	They looked in the dressing up box.	5
8.	Kay ___________	5
9.	David ___________	5
10.	They looked in with the hamster.	5
11.	Sally found the mouse in the doll's bed.	5
12.	Colin said "thank you".	5
	Total :	60

Character Development	:	40 points
Events	:	60 points
Total	:	100 points

Aided Retelling

This score is included in the above.

1. Tell me more about the story.
2. Where did Colin take his mouse?
3. What happened?
4. Describe how the children helped.

STORIES ABOUT PETS

Peter's pet

"They are safe at home now."

Dorothy H. Glynn, "Stories About Pets", Dominoes Extras (Edinburgh : Oliver and Boyd, 1974).

GUIDE QUESTIONS TO STORY RETELLING

STORIES ABOUT PETS

Unaided Retelling

Say : "After you read this story, I want you to tell me as much of the story as you can remember."

Turn the reading material face down.

Say : "Tell me everything you can remember about the story, 'Stories About Pets'."

Do not interrupt or interject during the retelling.

Character Development (40 points)

Miss King	the teacher	4
Peter	has a hamster	5
	looks after his hamster	
Pat	has a goldfish	2
Jeremy	has a kitten and a dog	3
Jim	had some hamsters	
	gave a baby hamster to Peter	5
	Jim is kind	2
Mummy		1
Daddy	helps Peter make a cage	3
Goldy	the hamster's two pouches	3
	likes nuts and milk	
Grandma	stays at Pat's house	2
Pat	kind to her pets	4
	feeds them everyday	
Goldfish	Pat's pet	2
Smoky the kitten	frightened	2
Scotty the dog	naughty	2
	Total :	40

Events (60 points)

1. Jim showed Peter his hamster. 3
2. Jim gave a hamster to Peter. 3
3. Jim put it in a box. 3
4. Peter's daddy made a cage with a ladder. 3
5. Peter feeds Goldy every day. 3

6. Goldy runs about the room. 3
7. Peter loves Goldy. 3

Pat's Pet

1. Grandma came to stay. 3
2. Grandma gave Pat ten cents. 3
3. Pat bought a goldfish. 3
4. Pat's goldfish was lonely. 3
5. Pat's daddy made a pool in the garden. 3
6. Pat's daddy bought three goldfish. 3

Jeremy's Pets

1. Smoky runs after Scotty. 3
2. Scotty did not come when he was called. 3
3. Smoky and Scotty did not come back. 3
4. Jeremy went to look for them. 3
5. Scotty was wet and muddy. 3
6. Smoky was in a field with water. 3
7. Daddy saved Smoky and they all went home. 3

Total : 60

Character Development : 40 points
Events : 50 points

Total : 100 points

Aided Retelling

This score is included in the above.

1. Tell me more about the story.
2. Tell me about the pets.
3. Tell about the hamster.
4. Tell about Pat's ten cents.
5. Tell about Jeremy's pets.
6. How does this story make you feel?

WHAT WE MAKE WITH BRICKS

We have some bricks

We are making a house.

Dorothy M. Glynn, "What We Make With Bricks", Dominoes Extras (Edinburgh : Oliver and Boyd, 1972).

GUIDE QUESTIONS TO STORY RETELLING

WHAT WE MAKE WITH BRICKS

Unaided Retelling

Say : "After you read this story, I want you to tell me as much of the story as you can remember."

Turn the reading material face down.

Say : "Tell me everything you can remember about the story, 'What We Make With Bricks'."

Do not interrupt or interject during the retelling.

This is a simple text. The child should relate all events.

Pictures may also be discussed.

Points scored for any observations made.

Total : 100 points

THE CAT THE BIRD AND THE TREE

The tree

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catch me if you can.

David Mackay, Brian Thompson and Pamela Schaub, Breakthrough to Literacy : The Cat, The Bird and The Tree (London : Longman Group Limited, 1970).

GUIDE QUESTIONS TO STORY RETELLING

THE CAT THE BIRD AND THE TREE

Unaided Retelling

Say : "After you read this story, I want you to tell me as much of the story as you can remember."

Turn the reading material face down.

Say : "Tell me everything you can remember about the story, 'The Cat the Bird and the Tree'."

Do not interrupt or interject during the retelling.

Character Development (40 points)

the tree		5
the cat	is near the tree	5
the bird	up in the tree	5
colour of cat		5
colour of bird		5
cruel cat)		
greedy cat)		5
wild cat)		
frightened bird		5
singing bird		5
	Total :	40

Events (60 points)

1.	The bird is up on the tree.	5
2.	The cat is near the tree.	5
3.	The cat looks up.	5
4.	Sees the bird.	5
5.	The bird is singing in the tree.	5
6.	The cat runs and jumps up into the tree.	5
7.	The cat climbs up and up and up.	5
8.	Looks at the cat.	5
9.	The cat sits still.	5
10.	The bird is afraid.	5
11.	The cat jumps from the branch.	5
12.	The bird flies out of the tree.	5
	Total :	60

Character Development : 40 points
Events : 60 points

Total : 100 points

Aided Retelling

This score is included in the above.

1. Tell me more about the story.
2. Do you remember anything else about the cat.
   the tree.
   the bird.
3. How did the cat sit when she saw the bird?
4. Why did the bird fly away?

APPENDIX F

READING MISCUE INVENTORY CODING SHEET

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APPENDIX G

QUESTIONS ASKED OF EACH MISCUE RECORDED ON THE "RMI CODING SHEET"

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[1] Yetta Goodman and Carolyn L. Burke, Reading Miscue Inventory Manual : Procedure for Diagnosis and Evaluation (New York : MacMillan Publishing Co. Inc., 1972),pp.55-63.

APPENDIX H

READING MISCUE INVENTORY READER PROFILE

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APPENDIX I

COMPREHENSION PATTERNS WHICH INDICATE THE EFFECTIVENESS OF A CHILD'S READING STRATEGIES,[1]

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[1] Y. Goodman and Carolyn L. Burke, Reading Miscue Inventory Manual : Procedure for Diagnosis and Evaluation (New York : MacMillan Publishing Co. Inc., 1972), pp.113-114.

APPENDIX J

LANGUAGE EXPERIENCE STORIES COMPOSED BY CHILDREN IN GROUP A

CLASS STORY

Four Little Pigeons

There is one little choco pigeon.
Snowball bird has feathers on his feet.
We let go the mother and the baby.
The pigeons flew away.

GROUP STORIES

Bricks

Bricks are hard.
We smelt the bricks.
The cement sticks the bricks together.
The bricks had holes in them.

Sussie

She is brown.
The dog growled.
She is long like a sausage.
She was sleeping on the ground.
She had some food.

Mr Bell The Fireman

Mr Bell had a hard helmet.
He said never to light matches.
Mr Bell had a woollen coat.
He cleans the fire engine.
Mr Bell squirts the fire out.

We Are Doing Some Shopping

We are in the shop.
We put some stuff away.
We built a shop.
We've got some biscuits in our shop.

The Pizza Hut

We watched the man make the pizzas.
We ate them for our lunch.
He gave us a balloon and a puppet.
We liked the pizzas.

The Picnic

We went on a picnic.
We had lunch.
We played in the sand pit.
We played on the monkey bars.
We played on the swings.
We had to go back to school.
We had a drink.
We liked the picnic.

Cakes

We iced the cakes.
We put decorations on the cakes.
We did lots of cakes.
We ate the cakes at playtime.
They tasted delicious.

INDIVIDUAL STORY

Platypus

He slid down the waterfall.
He got wet.
He builds a burrow.
He climbed up the rocks.
He went in muddy water.

APPENDIX K

READING MISCUE INVENTORY READER PROFILES FOR GROUPS A AND B

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APPENDIX L

SCORES FOR READING ACHIEVEMENT, ATTITUDE TO AND CONCEPT OF READING

Was removed due to poor reproducibility